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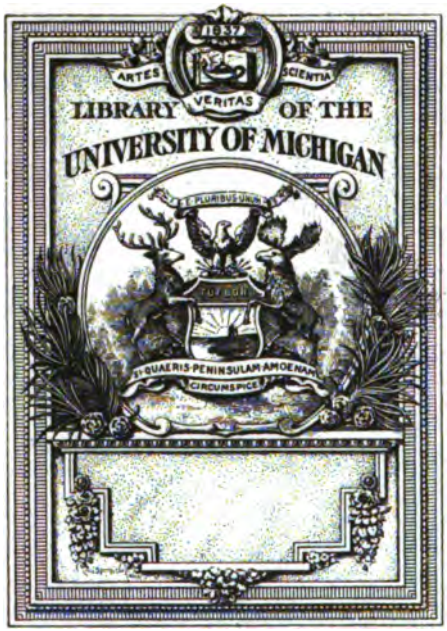
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HUNT'S

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LIEUTENANT GENERAL

SIR Wm Lepperell BART

Born in Kittery Maine June 27 1696
Died there June 6th 1759

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MERCHANTS' MAGAZINE.

Established July, 1839, by Freeman Hunt.

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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

JULY, 1858.

Art. I.—INDEPENDENT TREASURY SYSTEM.

PRESENT SYSTEM OF THE FEDERAL TREASURY—WORKING OF THE ACT—OBJECTS OF THE BILL—SOURCES FOR SUPPLY OF THE METALS—PLACES OF IMPORT—MINT AT PHILADELPHIA—LEGAL TENDER—DEMAND FOR COIN—AMOUNT OF REVENUES—ACCUMULATION OF SPECIE—IMPORTS ADVANCE THE DUTY—ACCUMULATION OF SPECIE SUPPOSED AN EVIL—DEFICIT IN REVENUE—TREASURY PRINCIPLE APPLICABLE TO STATES—ACT OF OHIO—REVENUES OF OHIO—DISTRIBUTION OF COIN—REVENUES OF THIRTY STATES—WHOLE AMOUNT TO BE COLLECTED—BANK-NOTES IN CIRCULATION—SMALL NOTES—MODE OF ASCERTAINING THE SPECIE IN THE COUNTRY—TABLE OF SUPPLY—AMOUNT IN THE COUNTRY—IMMIGRANTS—AMOUNT BROUGHT BY EACH—SILVER COINAGE—SUPPLIES BY IMMIGRATION—CIRCULATION OF THE COUNTRY—SPECIE TO BANK-NOTES—WORKING OF OHIO LAWS—BANKS OF UNITED STATES—INDIVIDUAL NOTES—VALUE OF COTTON CROPS—SPECIE TAKES PLACE OF PAPER CURRENCY FURNISHED BY BANKS—NET CIRCULATION.

THE present Treasury System of the Federal Government was approved by the President, August 5th, 1846, and will, consequently, have been twelve years in operation in August next. The object of it was, primarily, to enhance the specie basis of the general currency by promoting a demand for coin at the Custom-house, consequently from the banks, to cause the metals to pour into the vaults of the government, and to be by it paid out to its numerous officials and for contracts and expenses; thus diffusing into the channels of circulation coin instead of the bank paper, which, up to that time, had been the medium of payments. The act has worked well up to this time, although, perhaps, the course of events has, upon the whole, favored its action. One of the objects of the bill was to restrain speculative action by keeping up so continued a demand for coin upon the banks at the commercial centers, as to prevent them from lending the usual ratio of paper. It was, however, not enough for the law to demand coin, since the constitution had also conferred upon Congress the exclusive right of manufacturing it—a right which Congress had greatly neglected up to that time. Thus all the gold and silver then in the country was supplied exclusively by the operation of commerce. The produce

of American industry was carried abroad by the merchants and exchanged for the precious metals, which, for the most part, were brought into New York and Boston or New Orleans. To convert these metals into coin was the exclusive right of the Federal Government. Instead of doing this, it made foreign coins a legal tender, and placed one mint at Philadelphia, which it was expensive to reach, and nobody had any interest in paying the expenses. Foreign coins served the banks better than American coins, because people preferred bank-notes to strange money. The exporters preferred foreign coin because they were always better to send abroad, and the Federal Government used bank paper. Hence, there was little progress in the formation of a national currency, until the gold bills of 1834–37 changed the standard, without increasing the facilities of coinage. The independent treasury bill created a necessity for coin, and when bullion and foreign coins were received by the department, they were sent, at the government's expense, to Philadelphia for coinage. Immediately following the inauguration of the independent treasury came the gold discovery, and the material for coin has since poured steadily in, giving an impulse to general business, which has carried the Federal revenues up to a point not contemplated on the passage of the treasury law. The result was a great accumulation, which, in some degree, marred the action of the law. The principle had been, that under the action of the specie drain speculation would not arise, that, consequently, the customs would be no more than the real wants of the government; that the gold called in with one hand would be disbursed with the other, keeping coin in action without accumulation. The result has been as seen in the following table :—

	Customs.	Total receipts.	Total expenditures.	On hand June 30.
1848.....	$31,757,070	$36,992,479	$60,655,143	$5,760,915
1849.....	28,346,738	59,796,892	56,386,422	9,871,352
1850.....	39,668,686	47,649,388	44,604,718	11,147,346
1851.....	49,017,567	52,762,704	48,476,104	14,106,278
1852.....	47,339,326	49,893,115	46,712,608	19,768,084
1853.....	58,931,865	61,500,102	54,577,061	29,280,203
1854.....	64,224,190	73,802,291	75,473,119	18,727,043
1855.....	53,025,794	65,351,374	66,898,733	19,107,208
1856.....	64,101,206	68,911,111	70,822,724	19,901,321
1857.....	63,875,905	68,631,513	74,963,058	17,710,114

Step by step with the increase of the customs has this amount of *idle* coin accumulated in the treasury, and altogether from the gold paid by merchants out of their capital in advance to the government for import taxes. That is to say, the importer must pay the duty when he receives his goods, and he gets it again only when he sells them. It is the custom with some persons to ascribe this fact of accumulation to the inevitable operation of the sub-treasury system. This is, however, not the case—the accumulation is a direct violation of the sub-treasury principle, and arises from the neglect of Congress to regulate the revenue by changing the rates. In the above table it is seen that the identical duties which gave but $28,346,000 in 1849, gave more than double that in 1853, and has since given still more under the impulse of business. The events of the past fall have emptied the treasury, and the coin thus accumulated was a very welcome aid when it came out.

It has thus been seen that the collection of coin by the government through the customs has been no bar to the large business, or to the increase

of general commerce. It is true, no doubt, that during the activity of business there were times when the accumulation of coin in the government vaults was regarded ruefully as a hinderance to expansion, and as the cause of temporary scarcity in the money market. But there is now a deficit, and if the government under the law is required to borrow coin, it cannot keep it. Upon the whole, the distrust and opposition which the law at first encountered has passed away, and its working has begun to be regarded as applicable to States and cities. The State of Arkansas, having been unfortunate in her experience of banks, persists in requiring the constitutional currency in payment of dues to her. Wisconsin has a law prohibiting the receipt of anything but gold and silver coin in payment of public dues, but under the rapid increase of baking in that State the law has been hitherto inoperative, although it may now be enforced.

The State of Tennessee has passed a law requiring resumption of specie payments by the banks, November, 1858, and prohibiting after January, 1859, the circulation of notes under $5, and after January, 1860, of notes under $10; after September next, no bank to issue any but its own notes. Ohio has passed a law, in all respects like that of the Federal Government, to take effect July, 1858—a condensed view of it was contained in our last number. It provides that, at that date, all payments of State moneys at $5 and under shall be specie, and the grade of payments increases each year, until in 1865 all payments shall be made in specie only. The total taxes in Ohio amount to about $9,000,000 per annum, and the gradual collection of this amount in specie, will not greatly affect the general demand for coin, but will have a very great effect in passing coin into circulation. The revenues of the Federal Government are paid in large amounts by merchants who have large reservoirs at hand. When the collections are to be made from individuals in small sums by tax-gatherers, it becomes necessary for those individuals to be provided with coin —bank notes will not answer. If these continue to circulate, it will be requisite for each bank to keep a much larger supply of coin than they have been wont, to meet this effective demand when taxes are to be paid. Should this system become more popular and penetrate in all the States, it would involve the collection from taxes of a sum in specie about equal to that which the Federal Government now collects from customs and lands. Those collections would, however, be far more effectual in causing a current of coin to set through the small channels of business than would the operation of the Federal Government. The revenues of thirty States last year amounted to $60,101,281, including only the State taxes and payments. If the city, town, and country revenues were added, it would be at least as much more—say $120,000,000, which, added to the Federal revenues, would give very nearly $200,000.000, to be collected and paid out in specie. Of late years, the amount of mixed currency in the country has varied considerably; and it may be worth while here to trace it, as nearly as possible, by the official figures. The currency furnished by the banks to the public at these periods is as follows:—

BANK NOTES IN CIRCULATION IN THE UNITED STATES.

	1837.	1847.	1857.
Circulation outstanding.....	$149,185,890	$105,519,766	$214,778,820
Bank notes on hand.....	26,513,527	13,112,467	28,124,008
Net circulation.....	$122,672,363	$92,407,299	$186,654,812
Imports and exports.....	258,898,598	305,194,260	723,839,255

This was the net amount of currency furnished by all the banks and in the hands of the public at each period. Taking the amount of imports and exports as an index to the general business, it is apparent that the money furnished by the banks bore no proportion to the quantity apparently demanded by trade. It is to be further remarked, that of the net circulation outstanding, only $50,000,000 are of notes under $10. If we now take the official tables, and observe the progress of metallic currency, as they indicate it, we have some singular results. There are three modes by which the precious metals arrive in the country. 1st, from the mines, as well in the Atlantic cities as California; 2d, by the operation of commerce bringing in foreign coins; and 3d, by immigration bringing in, according to the researches of the Commissioners of Emigration, an average of $100 each in money, besides watches and jewelry, and plate, which, sooner or later, finds its way to the mint as bullion. Of the supplies from the first two sources, we have pretty accurate official information. The third can only be estimated by such data as are afforded by the commissioners. The quantity of the metals that goes out of the country is pretty well ascertained by the official figures. To ascertain the quantity of the metals in the country at any one time, it is necessary to take the quantity supposed to have been in the country in 1822, when the official tables were commenced; add to it the known supplies from the mines, and deduct from the sum the known exports. This process gives results as follows down to 1837, the first return for bank circulation in the above table.

The supply of gold and silver in three periods has been as follows:—

NET IMPORT AND UNITED STATES PRODUCTION OF THE PRECIOUS METALS.

1821 a 1840.	Net import.	Mines.	Total supply.	Export of United States coin.	Balance remaining.
Gold.....	$19,548,428	$5,946,236	$25,494,764	.....	.....
Silver....	35,300,931	.....	35,300,931	.....	.....
	$54,849,359	$5,946,236	$60,785,695	$8,230,676	$53,120,900
1840 a 1847.					
Gold.....	$16,645 186	$6,795,417	$23,440.553	.....	.....
Silver....	2,233,114	58,065	2,233,114	.....	.....
	$18,878,250	$6,853,482	$25,673,667	$7,787,516	$17,886,151
1847 a 1856.					
Gold.....	$19,020,489	$366,139,060	$385,159,499	.....	.....
Silver....	23,891	2,515,417	2,539,308	.....	.....
Total....	$19,044,380	$368,654,477	$387,698,807	$240,630,704	$147,068,103
Gr'd total.	$92,811,939	$381,454,195	$474,158,169	$256,648,896	$218,075,154
Specie in the country in 1820.....					31,000,000
Specie in the country, 1857.....					$249,075,154

Since the change of the gold standard by the laws of 1834-37, the import of silver has been less. On the other hand, since the receipt of California gold, there has been a product of silver parted from the gold. It appears from the results, that the net increase of specie in the country from the mines and imports from 1821 to 1840 was $53,120,900, which would make the quantity of the metals then in the country $84,120,900. In one of the reports of Levi Woodbury, Esq., it was estimated for that

year at $80,000,000. The increase in seven years ending with 1846, was, it appears, $17,886,151, and in the ten years ending with 1846, $147,068,103, making the aggregate increase $218,075,154 up to the year 1857, and embracing the quantity estimated to have been on hand in 1820, the amount in the country was $249,075,154. There is a good deal of bullion arriving as watches, jewelry, &c., which afterwards comes to the mint and not here included, but the other element of increase alluded to above, is not embraced in the foregoing, viz., the amount brought by emigrants. The number of these who have arrived in the United States from 1820 to 1847 is 4,889,499. If the returns of the emigrant commissioners, which ascribe $100 in money average to each of these, is correct, it would give the enormous sum of $488,949,000, a sum which would afford a large supply for manufacturing purposes, as well as for unreported exportation; it is not probable, however, that any such sum was received. Nevertheless, a good deal of silver coin must have come into the country in that manner to justify the official figures. Thus the imports and exports of silver have been:—

1820 to 1847, imports foreign coin and bullion.....	$187,252,184
" " exports " "	149,685,238
Net import.....	$37,566,946
Supply from mines.....	2,573,482
Total supply of silver, 1820 to 1847.....	$40,140,428
Coinage of silver at mints, " "	90,726,322
Excess coinage over apparent supply.....	$50,585,894

[The operations of the mint will be found in number for October, 1857, page 59.]

There is no doubt that a good deal has been recoined, especially since the law of 1853; since when, the silver coinage has been very active, and the government a free purchaser under the law. Nevertheless, the emigrants must have furnished a large portion of that supply. The figures for gold present more equality, as follows:—

	Supply, import and mines.	Coined.
1820 to 1840.....	$434,094,816	$436,831,923

This gives an excess of $2,737,107 coined over the supply, showing that the reserves of the emigrants in this metal were also largely drawn upon for the mint. It is to be observed that these figures for gold coinage embrace the "bars" cast, which are strictly not money but a convenient form in which to export the metals. In the last three years the government returns have distinguished between "bars" and "coin" exported. The former have been $94,106,931, and the latter $63,718,128. These figures show that, throwing the emigrant supplies out of this calculation, the figures $247,075,154, as the amount in the country at the close of 1856, are at least an under-estimate.

The amount of specie in the country, then, at each of the periods designated in the table of bank circulation, was as follows:—

	1837.	1847.	1857.
In banks.....	$37,915,340	$35,152,516	$58,349,838
In treasury.....	.....	1,578,101	22,108,120
In plate, &c.	25,000,000	35,000,000	40,000,000
In circulation.....	17,185,864	20,296,434	108,617,146
Total in country.....	$80,101,204	$102,007,051	$249,075,154

There is no means of ascertaining the amount of the metals in plate, but the estimate here given would be but two dollars for each white inhabitant, or ten dollars each family—an amount which would probably be covered by spoons. In 1841, Professor Tucker estimated it at $12,000,000, on a basis of $500,000 per annum. The quantity estimated to be in circulation will compare with the bank notes outstanding as above, as follows:—

	1837.	1847.	1857.
Bank notes.....	$122,672,363	$92,407,299	$186,654,812
Specie in circulation.....	17,185,864	30,296,434	108,617,146
Per cent specie of notes.....	7¼	30	60

Such has been the progress of the specie in circulation under the operation of the independent treasury, backed by the activity of the mint. If our estimate for plate as above is too large, the excess should swell the amount of specie in circulation.

The above figures bring the course of events down to January, 1857. The last year has produced great changes, emptying the treasury, filling the bank vaults, and thinning out the circulation. The result of this has been the larger accumulation of gold coins, which find their way into the central reservoirs.

It results from the figures here put down, in connection with the large continued product of the precious metals, accompanied by the spreading disposition to restrain the circulation of bank notes by compelling security for them, that the "specie basis" must continue to increase throughout the whole country, whereby the operation of such laws as that of Ohio must, at least, be greatly facilitated. The circulation of banks will, probably, be never dispensed with. Their convenience is far too great to admit of such a result, but the recklessness of the issue, which has heretofore marked them on some occasions, will not speedily be renewed. They impart to currency an elasticity which is at some times desirable, as in the case of a demand for breadstuffs through the failure of a foreign crop. In such a case, the faculty of issuing notes, enables the banks to discount the bills of forwarders and millers, who send forward the crops of the country in abundant supply. These notes, well secured, and redeemable from the proceeds of the crops forwarded, are a great advantage. The restraining their general use by the operation of such a law as that of Ohio, seems to be a wholesome check.

The following is a table of the leading features of all the banks of the United States, nearest to January in each year:—

BANKS IN THE UNITED STATES.

	Number.	Capital.	Circulation.	Deposits.
1837.....	788	$290,772,091	$149,185,890	$127,397,185
1843.....	691	228,861,943	58,563,608	56,168,628
1851.....	879	227,807,553	155,165,251	128,957,712
1854.....	1,208	301,367,071	204,689,207	188,188,744
1855.....	1,307	332,177,288	186,952,223	190,400,342
1856.....	1,398	343,574,272	195,747,950	212,705,662
1857.....	1,312	350,702,437	177,259,071	254,463,988
1858.....	1,407	392,342,912	133,951,556	219,337,574

	Discounts.	Specie.	Specie in United States treasury.	Total specie, banks and treasury.
1837.....	$525,115,702	$37,915,340	.....	$37,915,340
1843.....	254,544,537	33,515,806	.....	33,515,806
1851.....	413,756,799	48,671,048	$11,164,727	59,835,775
1854.....	557,397,779	59,410,253	25,136,252	84,546,525
1855.....	576,144,758	53,944,545	27,188,889	81,133,435
1856.....	634,183,280	59,314,063	22,706,431	82,020,494
1857.....	728,029,914	58,955,859	23,110,106	82,125,965
1858.....	673,986,767	83,853,270	10,204,119	94,057,389

The first year in the table, 1837, is that of the highest expansion, when suspension took place; 1843 was the point of greatest depression, when the remains of old speculation had been all pruned out. From that time to the present year there was a gradual upward movement, carrying the capital to a very high figure. The increase has been, it appears, $164,000,000 invested in banking since 1843, against about $1,000,000,000 invested in railroads in the same period. It is probably the case that the bank stocks have proved the best investments, and probably for the reason that the operation of the railroads has added largely to the wealth of the country, and consequently to its traffic, or the interchange of products, the paper growing out of which constitutes the material for banking operations. In this view the bank loans have not increased faster than has been necessary. The individual notes given for produce and goods must of course increase in the aggregate, in proportion to the quantity and value of the articles they represent. Thus the cotton crop of 1857 sold for $180,000,000, while that of 1837 sold for $78,000,000; hence the notes and bills of exchange by which it was moved from plantation to looms must have more than doubled. Those notes favor the currency of "high commerce." At the same time it has been the case that retail currency or bank notes have diminished with the increase of business, rather than increased, as gold has become more abundant and the facilities for coining both gold and silver have become greater. Specie currency has taken the place of paper money. This distinction between "paper money payable on demand," and bills of exchange, and the notes of merchants, constituting the currency of commerce, discounted by the banks, is generally overlooked, and the two species of paper generally confounded by writers.

If we were to suppose the bank notes outstanding at the beginning of this year to be all suppressed, and goods being still sold on a credit for individual notes, it would result simply that the chief payments in cities would still be by checks on banks, and the actual drain from and paid into banks would be in specie. The credit system of selling goods would not be altered a particle, but the banks would receive and pay out coin as does the government and the clearing-house for balances. The actual money that the banks now hold is as follows:—

Circulation outstanding.....	$133,951,556
" on hand.....	23,812,195
Paper in hands of the public.....	$110,139,361
Specie in hands of the banks.....	83,853,270
Excess of paper over specie.....	$26,286,091

This $26,286,091 is, in fact, all the money that the banks furnish, and its entire suppression would not be materially felt; in fact, of the whole issues, $14,000,000 only is in bills under $5; $15,000,000 of $5 and $5,000,000 of $10. The remainder is all of denominations so high as not to enter into the functions of currency at all. Since the coinage bill of 1853, there has been coined $30,000,000 worth of silver coins of dollar fractions, and these have remained in the country, owing to the higher value placed upon them by the new law. They are now accumulating in the banks, and are by most of them paid out in preference to paying out their own small bills, because the coin is a dead weight and will not answer to export. It is obvious that if the banks received any quantity of these silver coins on deposit, the owner drawing his deposit in gold for export would make nearly ten per cent by the operation, that being the rate at which silver is valued over gold. The silver is indeed a legal tender only to a small amount, but a bank would encounter this loss by receiving a considerable sum on general deposit. It is highly probable that for a long time to come the precious metals will supplant the secured notes in circulation, and if the banks became entirely institutions of discount and deposit only, the real credit operations of commerce would be far more steady than they are.

The use of paper money is the most active element in the over-importation of foreign goods, and for the reason that specie can only be readily exported when its place in circulation is readily supplied with paper. We now, 1858, may illustrate. The amount of specie in the country is estimated at $260,000,000; of this, if $50,000,000 is in plate, &c., and $88,853,270 being in banks and treasury, there remains $121,000,000 in circulation.

Specie in the banks	$83,853,270
" " treasury	5,000,000
" in plate, &c.	50,000,000
" coin in circulation	121,146,730
Total in country	$260,000,000

During the panic, the quantity of currency, both paper and coin, has diminished. If now a speculation in foreign goods takes place and prices rise, a demand for more currency will result. This will be supplied with paper. When prices get so high as to stimulate imports of goods and check exports of produce, specie will go out of the country, and paper take its place until disaster results. On the other hand, if there is no paper, a demand for currency will be supplied by specie alone, and prices will not rise so much above the level of other countries as to induce speculative imports. It is in this operation that the surest safeguard of the manufacturers exists.

Art. II.—MERCANTILE BIOGRAPHY:

LIEUT. GENERAL SIR WILLIAM PEPPERRELL, BARONET.

It is a remarkable feature in our country's story that the men, whose acts have contributed most to the illustration of its pages, were self-made; and perhaps in no instance has it been so signally exemplified as in the life of the Christian Merchant and Hero whose name stands at the head of this article. The son of a fisherman, he became the most opulent and distinguished merchant ever raised in New England, and the principal actor in the greatest martial achievement that graces our colonial history. Not less extraordinary is the fact that a name so honored and ennobled should have become extinct on this continent at the third generation, and would have passed into oblivion but for our recorded annals. Nor are these more surprising than that Kittery Point, which was populous for a century, and the focus from which emanated all the commercial expeditions of this enterprising family, should have risen with its first and fallen with its last generation; its inhabitants being now reduced to the state it commenced with, a few poor fishermen.

For more than a hundred years, beginning at the last quarter of the seventeenth century, Kittery was assessed, and paid about half the amount of taxes of the whole province of Maine. Kittery Point was selected by Mr. John Bray, grandfather of our hero, as a good location for the fishing business and the building of vessels for the fisheries and coasting trade. In time, ship-building was prosecuted by him, and subsequently by the Pepperrells, till its commerce was extended along the coast, throughout the British West Indies, and with such European ports as the narrow policy of the mother government permitted.

Sir William Pepperrell, Bt., was born at Kittery Point, on the 22d of June, 1696, where his father, also named William, had long been actively engaged in business. The last mentioned was born at Tavistock, in Wales, commencing life as a fisherman, and upon coming of age removed first to the Isle of Shoals and subsequently to Kittery Point, where he became connected with and married a daughter of Mr. John Bray, and here he passed with uprightness and success the remainder of his days, which were closed in 1734, when in his eightieth year.

Ship-building was amongst the most profitable branches of business in which the colonists engaged—the home government having refused to listen to the complaints of the shipwrights on the Thames against their brethren in New England, who were their successful competitors.

Parliament had prohibited the manufacture of woolens in the colonies for transportation from one colony to another, and the hatters of London were favored with a law prohibiting those of the colonies from employing more than one apprentice each—but the Board of Trade decided that it would not do to prohibit ship-building in the colonies, so this branch flourished. Notwithstanding the very circumscribed field which the government left untrammeled, and the thousands of obstacles with which the commerce of a new country has usually to grapple with, Mr. Pepperrell succeeded in almost every enterprise in which he embarked. He, as well as all the other early settlers, had to qualify themselves for savage warfare, and their foresight soon rendered the settlement more secure than others against attacks from their Indian foes.

The military services of Sir William's father during the first few years of his residence here were performed at the fort on Great Island. A garrison-house was first maintained near his house at Kittery Point, to which families might resort when threatened by sudden assaults from Indians, and as early as 1700 a fort was erected which bore his name. Williamson says:—"The celebrated warrior, Col. Church, in his eastern expedition in 1704, with 500 men, had orders to send his sick and wounded to Casco, (now Portland,) or to Pepperrell's fort at Kittery Point. A breastwork was erected northerly of the point, and a platform laid for six guns, of which Capt. Pepperrell had command. He finally rose to the rank of lieutenant-colonel."

The son, our future hero, at sixteen bore arms and was on patrol duty. Savage warfare was rife in those days; neighbors had been captured and killed; the Lady Ursula Cutts, after providing hospitably for her friends, the Waldron family, was attacked by lurking Indians and slain, together with her laboring men; more than a score had been killed at Rye, some three miles distant, and another party came there and killed fourteen, captured four, burnt the village, and fled. Besides these there were massacres at Salmon Falls, Cocheco, and Oyster River.

In this school was fostered the martial spirit of the younger Pepperrell, which, at a subsequent period, shed such luster upon the arms of the colonists, and prompted exertions which resulted in transcendant advantage to New England and our mother country.

During the entire period of youth he was attached to his father's counting-house, and therefore his education was exclusively practical. Upon becoming of age he was taken into co-partnership by his father. At times they had hundreds of fishing vessels on the banks and at the shoals. Timber was rafted down the rivers for their ship-building, which was their greatest source of wealth. The proceeds of vessels and cargoes sent abroad were remitted to their bankers in England, who accepted their bills for merchandise required at home. Naval stores and provisions were received from the Southern colonies in exchange for fish.

The value of their estates was greatly enhanced by the purchase of extensive tracts of land. The towns of Saco and Scarborough were included in one of these purchases, upon which improvements were at once commenced. Mills were erected, and contracts made for building vessels on the Piscataqua and Saco Rivers.

In 1715, the elder Pepperrell was appointed a judge of the Common Pleas, and continued on the bench for many years—his son served as clerk of the court during the latter part of his minority.

A Congregational church was organized at Kittery in 1714, over which the Rev. John Newmarch was pastor, and in latter life was assisted by the Rev. Benjamin Stevens. Col. Pepperrell and wife were members of it from the beginning, and their son was admitted to communion on the decease of his father in 1734, at which period he seems to have received strong religious impressions, which happily influenced all his after life.

To this church the father bequeathed sixty pounds for church plate, and one hundred and ten pounds for the poor of the parish.

The ascendency which the Pepperrell firm enjoyed over every other mercantile house in New England gave it a large agency in the transactions of the pecuniary affairs of the Provinces with the mother country. This branch of the business was conducted by the junior partner, and as

it brought him in contact with the public men at Boston it tended to render his manners courtly, and favored his advancement in political and military life. He had no sooner passed through his minority than he was commissioned a justice of the peace and captain of a company of cavalry. Soon promoted, he was at the age of thirty a colonel, and commanded all the militia of Maine.

On the 16th of March, 1723, he led to the altar Mary Hirst, a daughter of Grove Hirst, and grand-daughter of Chief Justice Sewall, of Massachusetts. This happy union was dissolved only by the death of Sir William at the end of thirty-six years. Two of their children only survived childhood; Elizabeth, born December 29, 1723, who married the Hon. Nathaniel Sparhawk, and Andrew, born January 4, 1726, who died unmarried. Sir William remained at the homestead of his father, after his marriage, large additions having been made for his accommodation. In 1726, he was elected a representative to the General Court, and the next year was appointed a member of the Council of Massachusetts, which commission was annually renewed to the close of his life, eighteen years of which he was its president.

He was appointed chief justice of the Common Pleas in 1730, in which office he also continued through life. He had imported a law library in order to qualify himself by study for the performance of the duties of the office. Dr. Stevens says:—"Here it was, that being intrusted with the execution of the laws, he distributed justice with equity and impartiality; and although he was not insensible to the necessity of discountenancing vice by proper punishments, yet the humanity of his temper disposed him to make all those allowances which might be alledged in extenuation of the fault."

In 1727, a new tier of towns in the rear of those on the seaboard, extending from Salmon Falls to Androscoggin River, was surveyed, and offered to settlers on the most favorable terms. This was done to protect the old towns that had suffered so much by Indian depredations, and also to provide farms for those who fought in the Indian wars, or who had suffered heavy losses by fire and the tomahawk. Agents were appointed by the General Court to convey these lands to such claimants and to other settlers. Phillipstown (now Sandford) was assigned to the agency of Col. Pepperrell, who signed the deeds of conveyance.

Col. Pepperrell never refused any public service he was called upon to perform, and by early rising, economy of time, and punctuality to engagements, (in which he was also scrupulously exacting of others,) he was ready to embark in all new enterprises, both public and private, that promised a favorable result. A war was now approaching between Great Britain and France. These rival nations could hardly over-estimate the importance to their American possessions of the Islands of Cape Breton and Newfoundland, as between these two sentinels all supplies and intercourse must pass (through the St. Lawrence) between France and the Canadas. Both were engaged in the fisheries on the Banks near Louisburg. The trade of the British colonies was of great importance to the mother country, and amongst other advantages, it supplied ship-timber for the navy.

Armed vessels, during war, fitted out at Louisburg, could intercept the colonial trade of the rival nation, and destroy its fisheries—and from the earliest settlement it was contended for, and alternately passed into the

hands of one or the other, as success or defeat attended its arms in other quarters. At the treaty of Utrecht, Nova Scotia proper was ceded to Great Britain, while Cape Breton was retained by France.

Soon as the war of 1744 was declared by France against England, the commander of Louisburg dispatched a force of 900 men to the British garrison at the Island of Canso, which was captured, and the prisoners conveyed to Louisburg before news of the war had reached the British colonies. A like expedition against the fort at Annapolis-royal failed, in consequence of the arrival of a reinforcement of troops from Boston.

The Indians of Nova Scotia aided the French in these attacks, which caused a declaration of war against them. Col. Pepperrell was at the head of a commission sent to the Penobscot tribe to test their fidelity, requesting the Sagamores to furnish their quota of warriors, according to the terms of a former treaty. They replied that, "their young men would not fight against their brethren of St. John's and New Brunswick."

Through the autumn of 1744 it was a conceded topic that Louisburg must be wrested from the French. From the prisoners taken at Canso in the spring, and which had lately returned to Boston by exchange, an accurate estimate of the strength of the fortifications was obtained, and gave to Governor Shirley the idea of taking it by surprise before succours could arrive from France. The plan was submitted to the Legislature of Massachusetts by the Governor and finally agreed upon. A variety of circumstances concurred to render the expedition feasible. Many fishermen, thrown out of employment by the war, were ready to enlist as soldiers. The preceding season had afforded an abundant harvest, which made provisions plenty. The winter following was mild, the rivers and harbors were open, and the inhabitants unmolested by savages. Happy incidents drew the naval force of England, employed to guard the shores and islands of America, to Louisburg, whilst adverse circumstances to the French prevented the arrival of succours. The number of troops voted, was, by Massachusetts, 3,250; Rhode Island, 300; New Hampshire, 300; and Connecticut, 500. The whole number of armed vessels was fourteen in the provincial fleet, carrying about two hundred guns.

There were no military officers at that time in New England experienced in European tactics and warfare from whom a commander-in-chief of the expedition could be selected. Few only had been engaged in skirmishes with the Indians, but none had served in any siege or pitched battle.

Col. Pepperrell was, on the 31st of January, 1745, chosen commander. He was extensively engaged in the fisheries and known throughout New England; was popular in manners, and wealthy, besides being the largest subscriber to the loan for carrying on the enterprise. He had also long held the highest office in the people's gift, the Presidency of the Council. He hesitated about accepting the appointment, until Governor Shirley assured him that his influence was indispensible, and after consulting his friends, amongst them the famous preacher Whitefield, he, with diffidence, concluded to accept, much to the joy of his fellow colonists.

The popularity of the general secured a rapid enlistment of troops in every quarter, and from the town of Berwick, adjoining Kittery, the two militia companies belonging to it, of fifty each, turned out to a man.

Louisburg, on the Island of Cape Breton, is thus described by Dr. Belknap, the historian:—"It was two-and-a-half miles in circumference,

fortified in every accessible part, with a rampart of stone upwards of thirty feet high, and a ditch eighty feet wide; a space of two hundred yards was left without a rampart, on the side next the sea, and inclosed with pickets. The sea was so shallow at this place that it made only a narrow channel, inaccessible from its numerous reefs to any shipping whatever. On an island at the entrance of the harbor, which was only four hundred yards wide, was a battery of thirty cannon, carrying twenty-eight pound shot, and at the bottom of the harbor, directly opposite to the entrance, was the grand battery of twenty-eight 42's, and two 18's. On an eminence, opposite the island-battery, stood the light-house, and at the northeast part of the harbor was a magazine for naval stores. The entrance to the town was at the west gate over a draw-bridge, which was protected by a circular battery of thirteen 24's. These works had been twenty-five years in building, and cost more than six millions of dollars. This place was, in peace, a safe retreat for French ships bound home from the East and West Indies, and, in war, a place most favorable for privateers to seize fishing and coasting vessels and British merchantmen."

The Rev. Dr. Burroughs, of Portsmouth, thus describes this expedition, the most remarkable in our history:—

"The French had built a city and fortress on the Island of Cape Breton, which, in honor of their king, was called Louisburg. Their fisheries in the seas in its vicinity produced one million four hundred thousand quintals annually, and they annoyed the colonial fishermen so much that the fishing interest of Massachusetts and New Hampshire resolved on the destruction of Louisburg and the expulsion of the French from the fishing grounds.

The colonies south of New England declined to aid in so mad an enterprise though urged to do so; and Dr. Franklin, as if forgetting that he was "Boston born," ridiculed the project in one of the wittiest letters he ever wrote. The spirit of New England was up. A feeling something like that which caused the Crusades prevailed among the people. Religion shouted *Popery*, and even Whitefield made a recruiting house of the sanctuary, and he not only preached *delenda est Carthago*, but furnished the following motto for Pepperrell's flag, *nil desperandum Christo duce*, and one of his followers joined the troops as a chaplain and carried an ax on his shoulder with which to hew down the Catholic images in the churches of the fated city."

The orders of Governor Shirley to General Pepperrell were, to proceed with his hundred armed vessels and store-ships to Canso, there to build a block-house, deposit his stores, and leave two companies for a guard. Thence to sail with the fleet and army to Cabarus Bay, (within three miles of Louisburg,) where he was to arrive in the evening, and anchor under cover of darkness, forthwith to land his men and commence an attack without delay!! These were preposterous ideas of the lawyer-governor—that a hundred sail could arrive at a given point at a precise time; that the weather and winds would be favorable; that the rocky ridges pointing the shores and the ice and fog were to be avoided by all; that a certain harbor was to be made at night-fall in an unexplored bay; that a landing was to be effected immediately, amidst a heavy surge; and then the soldiers to take up a march in the dark, through a ravine, bog, and woods, and, after travelling three miles, to commence pulling

down pickets with grappling irons, and scale walls thirty feet high with ladders, all in the space of one short night!!

On the 24th of March the fleet and transports of Massachusetts troops sailed from Nantasket Roads. They harbored for three days at Sheepscot, and arrived at Canso on the 1st of April. The New Hampshire troops had previously arrived, and the Connecticut portion came in some ten days after. On the 23d of April, Commodore Warren's squadron of three ships of the line arrived at Canso to co-operate in the attack. The ice which had detained them being removed, the entire army embarked on the 29th, intending to arrive at Cabarus Bay in the evening, but the wind having subsided prevented their reaching it until the next morning. This was the first intimation to the garrison and city of Louisburg of the intended invasion, and it greatly alarmed the troops and inhabitants. About half the forces were landed on that day, and the remainder, with the provisions, on the two next succeeding days. Their encampment was so near the enemy's works that shot from their guns reached them.

Gen. Pepperrell lost no time in commencing a siege. Alarmed by the appearance of so large a force, the enemy abandoned the grand battery the next day, which was taken possession of by a body of our troops under command of Lieut.-Colonel Vaughan. The French, upon discovering their mistake, sent a hundred men in four boats to retake it, but Vaughan resisted until a reinforcement came to him, when the enemy retired, leaving the Royal Battery in his possession. This battery consisted of twenty-eight 42's, two 18's, besides two hundred and eighty shells, and other munitions of war. The siege was now conducted with great spirit to the end.

On the 15th of June, the fleet, comprising eleven ships of from forty to sixty guns, anchored in a line near the city, making an imposing spectacle. The general ordered six hundred provincials on board to augment their crews. Commodore Warren came on shore, and the troops being paraded, the general and commodore exhorted them in stirring speeches to exhibit their bravery and skill during the designed attack.

The governor, Duchambou, now hopeless of averting the impending storm, his batteries being sadly damaged, and many of his guns dismounted, the houses mostly demolished, and his troops worn out by the seven weeks siege, besides the strong force surrounding him by sea and land, could not do otherwise than surrender. Accordingly, terms of capitulation, honorable to both parties, were entered into on the 16th of June, 1745, and the keys of the city and stores were delivered to the victors. On the 17th, the provincial army marched into the fortress and paraded in a line in front of the French troops who were drawn up to receive them. Salutations being exchanged, formal possession was taken, and a banquet prepared, by order of General Pepperrell, for the officers.

By the foregoing account it will be seen that the original plan of attack was by no means observed, yet, to the surprise of all, the fortress and city fell.

The loss of the provincials was 130, and of the French, 300 killed within the works; which, with the shattered condition of the city and fortifications, proved that the 9,000 cannon balls and 600 bombs thrown into them had done execution. By the capitulation, 4,130 prisoners engaged not to bear arms against Great Britain or New England for a year. They were embarked on board fourteen cartel ships and transported to Rochefort, in France; 76 cannon and mortars fell into the hands of the

victors, besides other property to an immense amount; also provisions in the city for five or six months. Upon entering the fortress and observing its strength, the stoutest hearts were appalled, and the practicability of taking it by surprise, as at first contemplated, appeared entirely futile. The captors, by keeping the flag of France on the ramparts, decoyed and captured ships and cargoes worth several millions of dollars.

The conquest of Louisburg, says Smollett, was the most important achievement of the war. And another author remarks that, "New England gave peace to Europe by raising, arming, and transporting 4,000 men, whose success proved an equivalent for all the successes of the French upon the continent."

Capt. Montague was sent express with the news of the surrender to London, and was presented by the Lords Commissioners of the Admiralty with 500 guineas. The Tower and park guns were fired, and at night were bon-fires and illuminations in the city, and a general rejoicing pervaded the kingdom. Pepperrell and Warren were complimented by the Duke of Newcastle for their harmonious co-operation. The latter could not have raised an army of volunteers, nor have controlled them by gentle means; accustomed to command turbulent sailors, he could discipline them only by main force. They both endeavored to be faithful, and were crowned with success. Warren was promoted to the grade of admiral.

Fortune adhered to Pepperrell in this as in all his commercial enterprises, and his good judgment, and personal bravery, were not wanting in the accomplishment of the great work. Without ambition of military preferment, this opulent and busy merchant left the attractions of home at the call of his country, and endured the fatigues of a camp upon a doubtful and perilous enterprise. To be sure, his troops were not mercenaries—they volunteered to defend their firesides and protect their fishing grounds.

The general was rewarded with the colonelcy of a regiment in the British army, and a baronetcy; while Col. Vaughan, his second in command, who had performed prodigies of valor, was suffered to die neglected.

After this brilliant achievement Gen. Pepperrell repaired to England, and was presented to the king, (George II.,) who said to him, "how can I best reward your great services," to which the General replied, "by keeping a sufficient force on the Banks of Newfoundland to protect the thousands of fishermen for whom I find employment there." Struck by the disinterestedness of the answer, he presented him with a superb snuff-box, having upon the cover, in bas relief, the appropriate representation of the interview between Alexander and Diogenes.* His Majesty could well appreciate the sacrifices and services of Gen. Pepperrell, having been himself a soldier in early life. He led a squadron at the battle of Oudenard, in the Netherlands, 11th of July, 1708, in which his horse was shot under him.

The city of London presented Gen. Pepperrell with a silver table, covered with a service of plate; and when the seizure of loyalist property took place in the early part of our revolution, it was exempted by the people and sent under a flag with a guard, in charge of Sheriff Moulton, of Maine, to Boston, then in possession of British troops, for his

* Owned by Mr. G. A. Ward.

grandson and heir, the last baronet of the name, who, having been a mandamus counselor, afterwards retreated to England a loyalist refugee.

Early in 1748 Sir William notified his correspondents that he had retired from mercantile pursuits, and recommended his son as successor to the extensive business he had so long guided. And it appears to have been his highest ambition to educate this son for so important and useful a position. He was taken into co-partnership by his father, after having graduated with the highest honors at Harvard University, and by industry and ability on the part of the son, the wishes of the father were fully realized, and he looked forward to the continuance of a business through him which himself had so long successfully managed for the advantage of the community.

At this period Sir William was much afflicted with rheumatism, from which he never entirely recovered, and which he attributed to the cold weather during the siege of Louisburg, and the dilapidated condition of his head-quarters there, during the succeeding winter.

We need not wonder at his desire to be relieved from some portion of his cares, and it is almost incredible that one man could, for so long a period, be able to attend to such numerous and varied duties. He was more extensively engaged in the fisheries than any other man. Owner of saw-mills on several rivers, ship-building had ever been carried on by him to a great extent, even to the building of frigates for government. He was manager of the largest landed interests in New England, chief justice of the Common Pleas, president of the Governors' council, a colonel in the regular army, superintendent and accountant of the recruiting service, and commander-in-chief of the militia of Maine, and also a commissioner to treat with the Indians. Yet his friend and pastor, the Rev. Dr. Stevens, in his funeral sermon, said it was a common remark that he succeeded in everything he undertook.

His constant intercourse with all classes gave him a clear perception of character, which, no doubt, contributed largely to his influence. His estimate of character was quite apparent in the selection of his friends. Governors Belcher, of Massachusetts, and Wolcott, of Connecticut, who served under him, he loved and honored. Waldo, his associate in many offices, Bradstreet, his lieut. colonel; Hill, of Berwick, and Meserve, of New Hampshire, were admired by him. He was also on the best of terms with the clergy, far and near.

From Portsmouth, England, August 13th, 1749, Admiral Warren wrote to Sir William that the money voted by Parliament, for reimbursing the provinces for the Louisburg expenses, would be remitted by the vessel in which his letter was sent, and he hoped it would have the good effect of establishing a silver medium. Six hundred and fifty-three thousand ounces of silver were landed at Long Wharf, Boston, placed in wagons, and carried through the streets amidst great rejoicing.

At the peace of 1749, Louisburg was restored to France, much to the dissatisfaction of Sir William and all New England. And in the war which preceded the revolution by about twenty years it was captured a second time, and miners were sent from England to reduce its walls to rubbish. In this second capture, Wolfe distinguished himself. He sailed from this doomed city for Quebec at the head of 8,000 men, to rise from a sick bed and *die satisfied* on the plains which his name has made immortal. Louisburg, now desolate, had nunneries and palaces; 206 cannon were

mounted to perpetuate French dominion over it, 6,000 troops garrisoned its fortress, and a fleet of ships of the line was moored in its waters. But yet, though called the Dunkirk of America, because of its excessive strength, it fell, and now it is scarcely known that such a place ever existed. None but fishermen now visit it, and they for shelter, not for traffic.

After the restoration of Louisburg to the French in 1749, the English provincials commenced a settlement at Halifax, where the land was good and mast-timber abundant.

A disagreement having occurred between the Rev. Dr. Jonathan Edwards and his church at Northampton, he received proposals from the commissioners at Boston of the "Society in London for Propagating the Gospel in New England" to become the missionary of the Stockbridge Indians. Among distinguished individuals who took an interest in this tribe was Joshua Paine, Esq., of London, who requested information of Sir William respecting the establishment of a school for Indian girls at that place. Dr. Edwards gave his views of the matter in a letter to Sir William, who took much interest in the Indian Mission. The latter wrote to Admiral Warren upon the subject. The admiral, who at first intended to appropriate the seven hundred pounds sterling which the government allowed him as a commission on the disbursements in the Louisburg expenditure to the support of a Protestant church in Ireland, and subsequently changed his purpose to that of building a town-hall at Cambridge, Massachusetts, was now induced by Sir William to appropriate it towards educating the Indians. In reply to Sir William's letter, Admiral Warren says, "I am pleased with the idea of bringing the Indians to Christianity, and have written to Secretary Willard that I shall be glad if the £700 sterling which I have ever intended for public use might be improved for that, instead of building a town-hall at Cambridge." Thus the success which ensued at Stockbridge was greatly promoted through the suggestion and influence of Sir William.

To Sir Peter Kenwood, his correspondent in England, Sir William wrote in 1749–50 that his regiment was disbanded, and he allowed half pay as a colonel, which did not amount to the interest of the money he had expended at Louisburg out of his estate. That his son had received some consignments, and had ordered the building of several ships for gentlemen abroad, and that he had acquired the character of a diligent and honest man, which afforded him great comfort.

On the 1st of March, 1751, Sir William was doomed to meet an awful dispensation of Providence, in the death of his son, then in his twenty-sixth year.

Some author has stated that the fate of greatness is to weep unpitied; but the aphorism did not hold good in this instance, for Sir William lived for others instead of himself. His wealth and patronage had scattered blessings all around him, by which he had disarmed envy and secured universal respect. The afflicted mother mourning her beloved son, the fond sister bewailing the loss of her accomplished brother, and the bereaved father shuddering at this first blow his house had ever sustained, presented a picture truly appalling. The prop of life, the heir to his title and estate, had been removed just as he was prepared to enter the most important scenes of life. His pillar and support being gone, the old hero continued his preparation, early begun, for an event which he felt might

not be far distant. He soon rallied, however, and his useful life was prolonged for several years.

Sir William had been a commissioner for forming most of the treaties with the Indians since the year 1720. On the 20th of September, 1753, a conference was held at St. George's, between the Penobscot and Kennebec Rivers, between the following commissioners, viz.:—Sir Wm. Pepperrell, Jacob Wendall, John Winslow, and James Bowdoin, and the chiefs of the Penobscot tribe. Former treaties were renewed, and the conference being ended, the presents ordered by government were delivered, and after drinking the health of the king the commissioners took leave and the chiefs retired.

In 1754, Governor Shirley requested Sir William to meet him at Fort Richmond, (now Waterville,) as he wished to advise with him respecting the building of a fort still higher up the Kennebec River, and the demolition of Fort Richmond.

When the expeditions of 1755, against Du Quesne, Crown Point, and Niagara were projected, it was expected that Sir William would attack Niagara at the head of his own regiment under Gov. Shirley, but in June, while he was filling his regiment, he received a commission of major-general from the king, which entitled him to higher command.

Col. Sparhawk, of the Legislature of Massachusetts, and son-in-law of Sir William, writes to the latter, under date of 14th of June, "I tell your friends that I don't know if you can be excused if you desire it, and that, from your advices to your family, you fully intend to go, which I think the safest answer. I hope you will, if consistently with your honor, excuse yourself from going on the expedition. You know that when you went to Louisburg, though Gov. Shirley tarried in Boston the whole time, his friends ascribed a great deal to him, and as he will now be at the head of the expedition, distinguish yourself as much as you will, he will have the honor and applause."

Again, 24th of June, "I am concerned to have you fairly excused, and it is said you may, if you please, and that it is inconsistent, as you are a general officer, to act under one of inferior rank."

Sir William was ordered by Gov. Shirley to command the eastern frontier, which, residing as he did in Maine, and knowing its condition and danger, was judicious, and thus relieved him from the expedition, which, however, was finally abandoned.

In January, 1756, Gov. Shirley applied to the Legislature for 3,000 men, for the support of which he loaned the province £30,000 out of the government money in his hands. The Governor aimed at securing Sir William's services in the council by offering him the command of the troops, which were to operate against Crown Point. But having accomplished his object, revoked his promise, and conferred the command on Gen. Winslow.

Very few would have submitted quietly to the slights of Gov. Shirley. After complimenting the provincial troops in unmeasured terms in his letters to the Duke of Newcastle respecting the capture of Louisburg, he said nothing complimentary of Gen. Pepperrell's faithful services, although he had done all that a vigilant and intrepid commander could do, and had advanced a large sum out of his own fortune to carry on the expedition, and received but partial remuneration for his services and sacrifices.

Sir William writes thus to his friend Sir Peter Kenwood: "Gov. Shir-

ley would not let me go against the French, neither last year nor this, and now I think I am too old. Affairs have been managed badly here, and we are in miserable circumstances, and have lost many of our young men and much of our strength. We have done nothing here against the French for two or three years past, but it is to be observed that there was no American officer in command."

Shirley was recalled, and after his embarkation for London, September 12th, 1756, the government devolved on Lieut. Governor Phipps, and by his death, in the following March, on the council, of which Sir William was president and governor *de facto*, until Gov. Pownall's arrival, on the 3d of August, 1757.

Sir William was also in command of Castle William in Boston harbor, as well as of the whole military forces of Massachusetts, with the rank of lieut. general. The new governor was well received, and in performance of the ceremony of taking possession of the castle, when Sir William presented the keys, he remarked that this fortress was the key of the province, to which Gov. Pownall replied, "the interest of the province is in your *heart*, and I shall be always glad to see the keys in your *hands*." A well-timed compliment.

He complains in various letters that he had not been consulted by Shirley and others in command on the frontiers in relation to the expeditions, and intimates that the disastrous termination of the campaigns was in a measure owing to this neglect. Historians condemn Braddock for not listening to the counsels of Washington; and Shirley, Loudon, and Abercrombie, deeming it beneath their dignity to call Pepperrell into council, evinced their own incompetency and were severally ordered home, while Pepperrell ever retained the confidence of the mother government.

The campaign of 1758 was successful, and resulted in the recapture of Louisburg, so grateful to our hero, for nothing could have pained him more than its reversion to the enemy by the treaty of 1748.

In the annals of history the first conquest of Louisburg stands out in bold relief, and Mr. Pitt, having satisfied himself that no man in America wielded so powerful an influence as Sir William, and that in times of trouble all eyes were turned to him as a leader under whose banner they were ready to march *en mass* to meet the foe, induced his Majesty, the king, to honor him, on the 20th of February, 1759, with the commission of a lieut. general of the royal army. This honor, as well as the previous one of baronet, had never before been conferred on a native American, which fact greatly enhances their value, particularly as it was for services rendered his native country.

His health soon after failed, and he was unable to take the field, but his life was spared until the British and provincial armies approximated the conquest of a vast region, long held by France, and soon after added to the British Empire. He died on the 6th of July, 1759, at his seat in Kittery, at the age of 63. His funeral was public and attended by a vast concourse. The drooping flags at half-mast on both shores of the Piscataqua, the solemn knell from neighboring churches, the responsive minute guns from all the batteries, and the mournful rumbling of muffled drums, announced that a public benefactor had fallen and was descending to the tomb.

The writer of his obituary notice at the time, probably the Rev. Dr. Stevens, remarks that "the sickness whereof he died was of long continu-

ance, and was accompanied with great pain, which gave occasion for the exercise of exemplary patience."

The life of this eminent man shows that a vast amount of good can be accomplished in several walks of life, at the same period, by industry and a systematic appropriation of time.

Sir William was distinguished for his fine address; he had a taste for refined society, of which he was the life; he possessed but little knowledge of books, but by being in constant intercourse with mankind few were better acquainted than himself with those with whom he came in contact. He expended liberally in the purchase of books, and was guided in the selection of them by his pastor, the Rev. Dr. Stevens. His library comprised the best English editions of standard works.

A large number of volumes were selected, which, added to the contributions of others, formed a revolving library for the benefit of the parishes of Kittery and York—each enjoying its advantages at certain periods of the year. He contributed generously to his own church and parish, and gave a four-acre lot for a church at Saco, as well as a liberal sum to the college at Princeton, New Jersey.

Public benefactions were not common in those days; besides, he was surrounded by a very poor population, who required daily relief. His will shows that he had many poor relatives who had anticipated their legacies and yet required his further aid.

After the death of her husband, Lady Pepperrell erected an elegant house near that of her son-in-law, Col. Sparhawk, and the village church; here she died on the 25th of November, 1789. Her natural and acquired powers were highly respectable, and she was admired for her wit and suavity of manners.

The old mansion which Sir William inherited from his parents is plain in architecture, but contains a great many rooms; it was well adapted to the extensive domains and hospitalities of its former owners. The lawn, in front, extends to the sea, and the restless waves, over which Sir William sought fortune and fame, still glitter in the sunbeams and dash around the disconsolate abode. The fires of ancient hospitality are extinguished, and the present inhabitants of the mansion (many families of poor fishermen) seem to wish to exclude all visitors and strangers. The hall is spacious and well finished; the ceiling ornamented—and the richly carved banisters bear traces of former elegance. On ascending the staircase, paintings of angels' heads decorate the hall window. All traces of comfort, however, seem annihilated. In a field near the old mansion is the tomb—a melancholy memento of the frailty of human greatness. It is highly ornamented with the family arms, and an inscription records that it was erected in 1734 to the memory of the parents of the Baronet, but there is no notice of the death of the victor of Louisburg. In this mansion, where he was born and died, the Baronet always lived suitable to his rank, and extended hospitality to the numerous visitors who flocked to see and converse with the victor of Louisburg. His walls were hung with costly mirrors and paintings; his sideboards and cellars were filled with the choicest viands, and his park stocked with deer. He had a retinue of servants, costly equipage, and a splendid barge with liveried oarsmen. His dress was of the expensive kind worn by the noblemen of that day—scarlet broadcloth trimmed with gold lace, a cocked hat similarly trimmed, and a large powdered wig. A full length life-sized historical portait of him adorns the gallery of the Essex Institute, Salem, Massachusetts.

Elizabeth, the only child that survived Sir William, was married on the 1st of May, 1742, to the Hon. Nathaniel Sparhawk, a counselor and judge. He was a son of the Rev. John Sparhawk, of Bristol, and a brother of the Rev. John Sparhawk, of Salem, Massachusetts.

The address of Col. Sparhawk was dignified and elegant—he was liberally educated and possessed a refined taste. A few years ago there was a fine avenue of trees leading to his house at Kittery Point. The large walls of the entrance hall of this mansion were covered with portraits of the Pepperrell and Sparhawk families, and of the friends and companions-in-arms of Sir William. Some of them were rescued from destruction by that excellent antiquarian and elegant historical writer, the late Rev. Dr. Burroughs, of Portsmouth, and grace the walls of the Athenæum there.

Soon after the decease of his son, Sir William sent for David Sewall, Esq., of York, afterwards United States District Judge of Maine, to make a will for him which would convey his worldly possessions to his posterity, and the desire he displayed to secure wealth to his grand-children was apparent throughout. The bulk of it was entailed upon many generations, and the name of Pepperrell was an appendage which the heirs successively were obliged to assume. He thought it secure; but the best laid plans of mortals are often frustrated by that Being who controls all events; and, notwithstanding the entailment, his princely domain was confiscated, because in possession of the last baronet of the name, (a grandson of the first,) who was a mandamus counselor and a refugee loyalist in 1775.

After a rich provision for Lady Pepperrell and his grand-children, and numerous legacies to relatives, to the parish poor, and the church at Kittery Point, and for a school to be kept there, he designated his grandson, William Pepperrell Sparhawk, as residuary legatee of his estate, on condition that upon his becoming of age, an act should be passed by the Massachusetts government, permitting his assumption of the name of Pepperrell and the relinquishment of that of Sparhawk. In pursuance of this, a law was passed authorizing the change, and the honor of baronetcy was conferred upon him by the king, in October, 1774.

The young baronet could not realize the necessity of the decided political movements of the day, nor did he believe that the eventual success of the colonists would repay the cost and suffering of the pending struggle with the mother country, so he retreated to England in 1775.

His course which constituted the treason, for which acts of banishment and confiscation were subsequently passed upon him, is set forth in the resolutions which we shall introduce. His acts therein referred to, were committed before a government to which treason could apply had been created, and he fully maintained his allegiance to the government *de facto* and *de jure*, and obeyed the only laws then in force. For his loyalty he suffered, besides banishment, the forfeiture of an immense estate, bequeathed only in trust, to be transmitted to others if male heirs failed in his line, and which no act of confiscation could legally reach. The reversal of a similar case in our courts, some thirty years ago, caused the State of New York to refund to John Jacob Astor, Esq., assignee of the Morris claim, five hundred thousand dollars.

On the 16th November, 1774, in a County Congress, held at Wells, York County, Maine, the following resolutions were passed, viz.:—

Resolved. Whereas the late Sir William Pepperrell, honored and respected in Great Britain and America for his eminent services, did honestly acquire an extensive real estate in this county, and gave the highest evidence, not only of his being a sincere friend to the rights of man in general, but of having a paternal love to this county in particular; and, whereas, the said Sir William, by his last will and testament, made his grandson residuary legatee and possessor of the greatest part of said estate, who hath, with purpose to carry into force acts of the British Parliament, made with apparent design to enslave the free and loyal people of this continent, accepted and now holds a seat in the pretended Board of Councillors in this province, as well in direct repeal of the charter thereof, as against the solemn compact of kings and the inherent rights of the people,

It is therefore resolved, that he hath forfeited the confidence and friendship of all true friends of American liberty, and with other pretended councilors, now holding their seats in the like manner, ought to be detested by all good men; and it is hereby recommended to the good people of this county, that as soon as the present leases made to any of them by him are expired, they immediately withdraw all connection, commerce, and dealings from him—and that they take no further lease or conveyance of his farms and mills until he shall resign his seat pretendedly occupied by mandamus. And if any person shall remain or become his tenants after the expiration of their present leases, we recommend to the good people of this county, not only to withdraw all connection and social intercourse with them, but to treat them in the manner provided by the third resolve of this Congress.

Sir William retreated to England in 1775, and was allowed by the British government a pension of five hundred pounds sterling for life, which, together with his plantation in Surinam, and some money in the funds, enabled him to educate his children, and to contribute largely to the relief of his captive countrymen in Great Britain, and to faithfully serve his fellow sufferers in the cause of loyalty. He lent his aid to all good works, and was otherwise exemplary in private life. He was one of the founders of the British and Foreign Bible Society.

Sundry letters from Sir William in London, during the war, to Isaac Winslow, Esq., in New York, who had married Miss Sparhawk, of Salem, a cousin of the baronet, fully evince his charity for his political opponents, notwithstanding the bitterness which marked their conduct and writings. These letters were published in the appendix to the third edition of "Curwen's Journal and Letters," 1845.

It is a remarkable feature in the published letters of the loyalists throughout the revolution, that they exhibit an ardent love of country and great liberality towards those who differed from them in political opinion, notwithstanding their sufferings from proscription, mobs, confiscation, and banishment.

This second Sir William was graduated with high reputation at Harvard College, Cambridge, in 1766. He married Elizabeth, daughter of the Hon. Isaac Royall,* of Medford, Massachusetts, and died in London, December 2d, 1816, aged 70, having previously lost, by death, Lady Pepperrell and their only son, whereby the baronetcy became extinct for the second time. A likeness of him is owned by his relative, Mr. G. A. Ward, of Staten Island, New York.

* Founder of the Royall professorship of law in Harvard University. He was also a loyalist refugee, as was his other son-in-law, Hon. George Erving, another founder of a Cambridge professorship.

Dr. Parsons* very justly remarks that "words and deeds before the revolution deemed patriotic, were afterwards considered traitorous, and so deeply was the idea of their moral turpitude impressed on the public mind as to have tainted popular opinions concerning the heroic deeds of our ancestors, performed in the king's service in the French wars. We have no sympathy with the joyous acclamations then bestowed on the successful victor returning from the field of glory to be crowned with laurels. We have felt no desire to perpetuate the fame of his achievements, although characterised at the time by patriotism as pure and disinterested as any exhibited during or since the struggle of the Revolution. The latter war absorbed and neutralized all the heroic fame of the illustrious men that preceded, and the achievements of Pepperrell, Johnson, and of Bradstreet are now almost forgotten; and the extinction of their fame, by the revolution, was not more remarkable than the wreck of their fortunes. The Penns, Fairfaxes, Johnsons, Phillipses, Robinsons, Pepperells were stripped of their immense possessions by confiscation, who, up to that hour 'had been but little less than hereditary colonial noblemen and viceroys of boundless domain.' Pepperrell, it is said, could travel from Pascataqua to Saco, nearly thirty miles, on his own soil, and his possessions were large in Scarborough, Elliot, Berwick, Newington, Portsmouth, Hampton, and Hubbardstown. In Saco alone he owned fifty-five hundred acres, including the site of that populous town and its factories. This princely fortune was, in a brief hour, demolished, and its fragments broadcast by the confiscation act of 1778, and two great grandsons of the hero of Louisburg have since been saved from the poor-house by the bounty of some individuals on whom they had no claim for favor."

Art. III.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LV.

BOSTON, MASSACHUSETTS.

FIRST SETTLEMENT—AREA OF PENINSULAR—FIRST OCCUPANT—FIRST VENTURE BY SEA—POPULATION AND VALUATION—INCREASE OF POPULATION—PESTILENCE—DIFFICULTIES ENCOUNTERED—PROGRESS OF POPULATION—PROPORTION OF FOREIGNERS—COMPARED WITH NEW YORK—VALUATION IN 1638—EXTENSION OF TRADE—EFFECT OF WAR—RETURN OF PEACE—FREIGHTS—IMPULSE TO TRADE—REVULSION IN 1836—BANKRUPT LAW—GOLD INFLUENCE—RAPID INCREASE IN TRADE—MANUFACTURES, 1845 AND 1855—AGGREGATE MANUFACTURE—SAVINGS BANKS—BANKS OF BOSTON—CAPITAL AND DIVIDENDS—PRIVATE BANKING CAPITAL—COMMERCE AND BANK LOANS—DECREASE OF BANK FACILITIES—BOARD OF TRADE.

THE Dutch are sometimes playfully asserted to "have taken Holland," and they have certainly done so in a sense in which no other country ever was "taken." They carried on with indomitable energy, through long centuries, a determined strife against old Neptune, before whom they "sat down"—opened a regular seige by lines of circumvallation, not underground works, as before a land power, but above ground, with a most

* Life of Sir William Pepperell Baronet. By Usher Parsons. Boston: Little, Brown & Co., 1855. In preparing the foregoing, much aid has been derived from this admirable work—abounding, as it does, in letters and documents—it cannot fail to satisfy the most exacting lover of detail.

extensive series of lines, dykes, and mounds, until the ocean was forced back, and 7,000,000 acres of land, won in the hard struggle from its domain, became converted into the homes of 3,428,233 of the most wealthy people of the world, whose commerce reached $96,000,000 of imports last year. As the Dutch wrested Holland from the sea, so did the handful of Puritans, who left the refuge they had there found to cross the ocean and wrest a new empire from the wilderness, becoming in their turn the richest community in distributive wealth. The rocky hills of New England, like the ocean sands of Holland, afford examples of the power of thrift and industry, where nature is the most niggard. The Pilgrims found the peninsular of Shawmut, with its expanse of 600 acres, divided into three thinly wooded summits, and of doubtful utility, until the Rev. William Blackstone pushed across Charles River and built a hut on the northwest corner, where Spring-street now is. He was the Robinson Crusoe of the place, when, four years later, Governor Winthrop and his colony found him in possession. In the following year Boston commenced its commerce by sending a vessel to Narragansetts to trade. The results of that venture were a home freight of 100 bushels of Indian corn, which, landed on the eastern eminence of the town, gave it the name of Corn Hill, soon after changed to Fort Hill, by the erection of a defensive work.

Trade with the natives was opened by presenting old Chickatabut with a suit of clothes. Thus early did the colony commence clothing this continent, and it has maintained its manufacturing character to the present time. Commerce naturally attracted the attention of the people at an early date, and within the first forty-six years after the settlement of Massachusetts, there were built in Boston and its vicinity, 730 vessels, varying from 6 to 250 tons in burthen. One of these, the Blessing of the Bay, a bark of fifty tons, was built in 1631. The celebrated English patriot and divine, Hugh Peters, caused a vessel of 300 tons to be constructed at Salem, in 1641. The first schooner ever launched is said to have been built at Cape Ann, in 1714. In 1713, Connecticut had but two brigs, twenty sloops, and a few smaller craft, employing but 120 seamen; while Massachusetts, about the same time, had 462 vessels, the tonnage of which was 25,406, and employed 3,493 seamen.

The industry and enterprise of the people added annually to the wealth and importance of the place, and in 1726, at the end of the first century from Blackstone's settlement, Boston contained 3,000 houses and 12,000 people. The progress of population, valuation, taxes, and commerce seem to have been nearly as follows:—

Years.	Population.	Valuation.	Tax.	Imports.	Exports.	Tonnage.
1638	700	$1,591	£216	.....	.....	.....
1675	4,000	....	206	.....	.....	.....
1704	6,750	.....	....	.....	.....	.....
1722	12,000	.....	2,568	.....	.....	25,406
1735	16,000	.....	2,200	.....	.....	.....
1742	16,382	.....	2,210	.....	.....	.....
1752	15,731	.....	....	.....	.....	.....
1765	15,520	.....	5,646	.....	.....	.....
1780	10,000	.....	951	.....	.....	.....
1790	18,038	5,354,243	....	.....	.....	.....
1800	24,937	13,095,700	$88,428	....	.....	.....
1810	33,787	18,450,500	144,486	.....	.....	.....
1820	43,298	38,289,200	165,228	$14,826,732	.....	.....
1825	58,281	55,442,600	201,039	15,231,856	$6,078,619	103,741
1830	61,392	80,000,000	260,967	8,348,623	5,180,178	100,214

Years.	Population.	Valuation.	Tax.	Imports.	Exports.	Tonnage.
1835	78,603	$79,302,600	$408,899	$19,088,580	$7,952,346	159,764
1840	85,000	96,381,600	546,742	14,122,308	8,405 224	149,186
1845	114,366	135,957,300	811,388	21,391,877	9,570,851	187,812
1846	.....	148,839,600	931,998	22,615,117	8,968,031	235,062
1847	.....	162,360,400	1,014,674	35,528,967	9,716,991	254,813
1848	.....	167,728,000	1,131.821	27,182,308	12,204,812	277,868
1849	.....	174,180,200	1,174,715	28,341,145	8,692,078	292,459
1850	138,788	180,000,500	1,266,030	28,659,733	9,141,652	312,991
1851	.....	187,947,000	1,353,296	30,508,417	10,198,153	337,990
1852	.....	187,680,000	1,244,626	31,958.192	13,588,512	375,803
1853	.....	206,514,200	1,614,446	39,300,912	18,094,683	444,382
1854	.....	227,013,200	2,125,222	45,988,545	19,751,916	491,062
1855	162,629	241,932,200	1,910,280.	43,256,279	26,641,660	541,644
1856	.....	248,721,100	2,039,051	41,661,088	27,988,653	517,182
1857	.....	257,193,200	.....	44,840,083	28,326,918	443,880

The population of Boston increased very slowly during the whole of the last century. Indeed, it may scarcely be said to have increased at all. The place was frequently ravaged by the small pox. In 1702, 300 persons died of it; in 1722, 844 died of it, and the place was nearly depopulated. Numbers were drawn for defence, and at times were driven away by yellow fever. In 1776, the population is said to have fallen to 2,719 souls. On the restoration of peace the prosperity of Boston may be said to have commenced. The first century and a half of its existence was marked by imperial oppression, Indian wars, pestilent diseases, bills of credit for circulation, and musket balls for coin, passing each for one farthing. There was no fertile back country which could furnish agricultural resources to commerce, and if Massachusetts has since laid claims to agriculture, it is because her "winter crop is ice, and her summer crop is granite." She had not then sent the Fresh Pond on its travels to the Ganges, the Thames, and the Orinoco. New England lakes did not then cool the mint juleps of the London "shades," or the sherbert of the Indian jungles, or ice the wines of Paris; nor were its rugged hills, that afforded no shelter for the Pilgrims, transformed into graceful palaces for distant cities. Evils of all sorts beset the colony, and educated that indomitable energy, far-reaching sagacity, and moral firmness, which has so indelibly marked the New England character. Although the original Boston contained but 600 acres, its surface has been greatly increased by reclamations from the ocean and by annexation. Thus, the old city contains 565 acres; the second portion embraces made land on either side of the neck, and has an area of 520 acres; South Boston, annexed to the city in 1814, has an area of 600 acres; East Boston has 700 acres—making together 2,385 acres settled by the present population; but it is to be borne in mind that the surrounding towns, although not officially annexed, yet, containing the dwellings of those whose daily avocations are in Boston, form really a part of the city. The operation of railroads, particularly the city lines, has greatly extended the area of dwellings, whose focus is State-street. Hence, the figures in the table by no means show the actual increase of Boston. The following shows the population of the adjoining towns:—

	1840.	1845.	1850.	1855.
Dorchester	4,458	5,483	7,969	9,101
Roxbury.....	8,310	13,929	18,364	18,609
Brookline.....	1,123	1,682	2,516	3,311
Cambridge.....	8,147	12,490	15,215	20,473

	1840.	1845.	1850.	1855.
Somerville	1,200	2,250	3,540	5,691
Charlestown	9,672	12,500	17,216	21,742
Chelsea	2,182	5,000	6,701	7,500
	35,092	53,034	71,571	85,727

A remarkable feature in the population of Boston proper is the increase of the foreign element. The birth places were as follows:—

Years.	Per cent.	Foreign.	American.	Total.
1845	32.6	37,280	77,086	114,366
1850	45.6	63,329	75,459	138,788
1855	54.3	88,556	74,073	162,629

So rapidly has the foreign element in the city proper displaced the American. The latter has, for the most part, sought dwellings in the adjoining towns, and the result is an evidence of the growing wealth of the New England metropolis. Numbers have also gone to California. Indeed, every country, and almost every city of the world, has Boston represented by some active individual, while the capital and activity of the place naturally attract those who seek to better their fortunes. Boston compared with New York in this respect, as follows, in 1855:—

	Population.	American.	Foreign.	Foreign per cent.
New York	629,904	303,721	326,183	52.
Boston	162,629	74,073	88,556	54.3

With the increase of numbers and trade, the taxable valuation of the colony did not increase much. The valuation of 1638, is based upon the payment made to Blackstone, to whom had been awarded fifty acres of land in consideration of his rights as the first European settler of the peninsular. This was one-twelfth of the surface, and the town bought it back for £30, which gave a value of £360 for the whole of Boston. The amount of tax levied, up to the Revolution, was the State charge upon Boston. The fisheries and the West India trade furnished the most ready sources of profit to the people. This trade grew, and subsequently extended itself all over the world. The Northwest Coast, China, and India, as well as the trading voyages of Europe and South America, brought large profits into Boston, under the direction of the sagacious merchants whose intelligent enterprise made their names famous in China as in California, long years before the gold diggings were thought of. This business was separately cut up, however, first by the jealousy of the mother country, next by the Revolution, the oppression of neutrals in the English war against Bonaparte, the embargo, and the war of 1812. Nevertheless, the profits had been large in spite of these interruptions; and with the return of peace, a large capital had accumulated, which sought manufacture as a more permanent investment than commerce, which, up to that time, had been so persecuted. At the same time, also, the developing resources of the South offered new freights to Boston ships, and a forward stride was taken in both directions—manufacture as well as commerce; and from 1820, when the town became a city, to 1840, the city's progress was more rapid than ever before. In 1830, steam, in the shape of locomotives, had added a new element to Boston enterprise. Her capitalists took hold of it vigorously, seeing that iron rails would give Boston that internal connection with the fertile West, that New York and New Orleans had

naturally by water. The valuation of Boston property, which had received a great impulse by the speculation of 1836, did not suffer so much by the revulsion, because it was supported by railroads, affording a genuine basis to much of the enterprise of the period. The returns of bankruptcies under the general law of 1841, (see page 414, volume xvi., of *Merchants' Magazine*,) shows Massachusetts to have been the least affected by the revulsion of any of the States. Thus we may compare the figures with New York, and with all the others, as follows:—

	Population.	Number applications.	Number creditors.	Debts.	Assets.
Massachusetts.	737,699	3,250	95,154	$24,752,932	$15,468,546
New York....	2,428,921	8,148	280,588	172,136,820	1,307,904
All others.....	13,902,793	22,341	673,821	244,054,863	26,920,857
Total.....	17,069,453	33,739	1,049,603	$440,934,615	$43,697,307

Thus the property of the Massachusetts debtors was equal to 60 per cent of the debts, while those of New York were less than 1 per cent, and all the rest of the Union nearly 10 per cent. In 1841–2, the new tariffs imparted renewed vigor to manufacturing enterprise, supported by increasing railroad business; and the returns for 1845 show a great rise in population, imports, and valuation, as well as tonnage, and that impulse was continued until the discovery of gold in 1849 gave fresh vigor to the movement. The establishment of the Liverpool steamers on the one hand, and the railroads on the other, have produced effects very visible in the table. The imports of goods into Boston have doubled in value, while the exports have tripled, including specie, but have doubled, exclusive of the metals. The tonnage registered at Boston has given a still more marked progress, the Australia and California trade calling into being a new class of vessels, which have made lucrative freights.

The local manufactures of the city in the time here embraced, has been as follows, according to the State census:—

PRODUCTS OF BOSTON INDUSTRY—CAPITAL AND VALUE.

	1845.			1855.		
	No.	Capital.	Products.	No.	Capital.	Products.
Carpeting.....	1	.....	.....	1	$100,000	$21,000
Rolling mills.....	..	.....	.....	3	657,000	1,525,000
Forges.....	1	$80,000	$58,200	3	400,000	232,000
Castings	7	224,500	268,000	8	327,500	491,500
Machinery.....	19	193,300	399,990	22	132,500	267,000
Steam engines.....	2	120,000	187,496	17	1,274,000	1,835,000
Hatchets and tools.....	..	.....	.....	1	2,500	10,000
Cutlery.....	2	4,700	7,500	3	3,000	11,250
Butt hinges.....	..	.....	.....	1	3,000	5,000
Door handles.....	..	.....	.....	4	12,500	39,100
Locks.....	6	16,200	37,870	7	24,500	66,700
Plows, &c.....	2	25,200	34,500	1	24,500	100,000
Iron rails.....	7	53,000	129,300	15	227,500	607,500
Copper	14	43,000	112,000	10	293,500	2,000,000
Brass foundries.....	9	119,900	211,440	14	324,000	1,004,000
Britannia ware.....	3	15,000	20,550	1	15,000	40,000
Glass.....	4	38,200	72,900	3	615,000	1,190,000
Chemicals.....	1	3,000	3,000	7	146,500	270,500
Piano fortes	19	288,300	530,375	22	955,000	2,004,700
" legs, covers, &c...	..	.....	.....	..	112,000	47,500
Sewing machines.....	..	.....	.....	5	83,000	3,385
Daguerreotypes.....	..	.....	.....	35	83,100	230,408

	1854.			1855.		
	No.	Capital.	Value.	No.	Capital.	Product val.
Watches and jewelry ...	19	$65,025	$210,100	22	$115,500	$617,000
Brushes	4	50,800	90,500	3	120,400	227,000
Saddlery	24	45,400	143,215	42	169,600	738,200
Upholstery	35	217,100	269,925	52	455,800	1,557,300
Hats and caps	46	67,350	330,071	37	143,200	727,300
Cordage	3	3,500	37,892	2	150,000	4,046,000
Boats	..	.....	.....	9	13,700	.....
Vessels	..	.....	.....	35	905,000	.....
Masts and spars	..	.....	.....	7	158,000	.....
Sail lofts	..	.....	.....	33	70,000	431,172
Salt	2	3,000	800	3	50,000	106,000
Cars and coaches	23	54,300	127,650	28	102,400	279,035
Sugar refineries	2	410,000	940,000	2	.....	2,000,000
Oil and candles, sperm	8	240,500	674,432	8	730,000	1,625,000
Soap and tallow candles	8	32,300	74,812	4	49,500	75,000
Fire-arms	..	.....	.....	2	2,500	7,500
Cannon	1	10,000	50,000	1	50,000	54,151
Chairs	35	48,450	163,400	36	360,700	1,063,800
Tins	54	146,300	357,250	51	195,500	419,000
Combs	1	1,050	1,500	3	2,500	6,500
White-lead	7	160,000	212,800	4	166,000	598,190
Linseed oil	1	20,000	50,200	2	550,000	800,000
Camphene	..	.....	.....	6	114,500	820,000
Flour mills	1	.....	13,500	2	300,000	870,000
Tanneries	21	69,600	243,600	1	40,000	120,000
Currying	..	.....	.....	20	86,500	336,200
Boots and shoes	..	.....	207,526	..	.....	193,900
Bricks	..	.....	41,680	..	.....	13,500
Instruments	..	.....	16,800	..	.....	101,000
Cigars, &c	..	.....	61,674	..	.....	70,750
Building stone	..	.....	275,800	..	.....	323,000
Marble	..	.....	117,820	..	.....	311,000
Charcoal	..	.....	.....	..	.....	5,000
Whips	..	.....	700	..	.....	.....
Blacking	..	.....	1,312	..	.....	3,000
Blocks and pumps	..	.....	57,000	..	.....	28,000
Mechanics' tools	..	.....	11,700	..	.....	115,300
Wooden-ware	..	.....	15,300	..	.....	118,000
Brooms	..	.....	.....	..	.....	36,000
Fringes	2	8,200	35,800	..	.....	30,000
Gold pens	..	.....	.....	2	3,500	.....
Shoe lasts	..	.....	29,000	..	.....	56,000
Lard oil	4	85,000	121,980	..	.....	.....
Whale fishery	..	23,000	18,000	..	.....	130,357
Cod and mackerel	..	80,000	78,958	89	260,000	317,000
Horses	..	3,873	290,475	5,121	.....	780,615
Oxen	..	.....	.....	51	.....	2,800
Cows	..	.....	9,180	519	.....	15,455
Sashes	..	.....	.....	7	12,800	44,500
Gas	..	.....	.....	4	1,041,000	445,000
Pickles and preserves	..	.....	.....	3	65,000	130,000
Distilleries	..	.....	.....	9	850,000	2,495,000
Breweries	..	.....	.....	7	67,600	238,408
Matches	..	.....	.....	1	10,000	50,000
Bakeries	..	.....	.....	53	131,700	965,810
Type foundries	..	.....	.....	6	96,000	230,000
Boxes	..	.....	.....	9	17,400	72,000
Pocket-books	..	.....	.....	2	2,000	6,000
Tailors, &c	..	.....	....	..	2,500,000	8,500,000
Milk	..	.....	.....	..	.....	32,263
Printing	..	.....	.....	..	442,450	807,280
Book-binding	..	.....	.....	..	29,200	78,500
Miscellaneous	..	1,112,300	2,664,693	..	993,300	3,315,100

The aggregate of the totals shows as follows:—

	1837.	1840.	1845.	1855.
Capital	$5,830,572	$2,442,309	$4,330,600	$18,567,910
Males employed	6,320	2,289	5,260	.....
Females employed	4,450	.....	970	.....
Value of products	$11,070,576	$4,016,573	$10,648,153	$51,935,028

These returns are seemingly very imperfect, and the result may be varied by the withdrawal of some important branches to the neighboring towns for greater convenience of operations. The welfare of the operators is marked in the returns of the savings institutions, which have been as follows:—

	Depositors.	Deposits.	Dividends.
1829	7,032	$947,594	$38,347
1839	15,017	2,309,168	79,428
1848	23,844	3,989,165	192,425
1852	30,616	5,629,748	621,652
1857	35,535	7,158,284	.....

In 1829, one in nine of the population deposited; in 1852, one in 4.75. The deposits, in proportion to the population, rather more than doubled. In 1827, the deposits were $15 for each of the population; in 1852, $40 per head. In addition to these, two five-cent savings banks have been started. The results show the welfare of the working classes in the State, as well as their thrift. The sum of $7,158,284, or, with the five-cent savings, fully $8,000,000, is disposable for the further employment of industry, and accumulates in a compound ratio.

With the increase of business in Boston, a greater demand for banking facilities has manifested itself, and the amount of capital which is there divided between shipping, railroads, manufactories, insurance companies, and banks, has given a full share to the last mentioned. The demand for bank facilities naturally manifests itself in the profits of existing institutions, prompting to the erection of new ones, and the amount of capital so employed has been as follows:—

BANKS OF BOSTON.

	Capital.	Loans.	Specie.	Circulation.	Deposits.	Profits.
1825	$10,300,000	$15,823,382	$527,789	$3,770,556	$2,494,868	$249,629
1835	18,150,000	28,647,438	861,842	3,396,584	8,616,080	593,257
1840	17,850,000	24,810,888	2,378,544	3,431,194	5,967,250	1,148,855
1845	18,080,000	20,945,886	2,778,930	5,921,248	9,782,167	1,201,134
1854	31,018,610	51,081,808	2,891,624	8,773,057	13,288,894	3,791,199
1856	31,960,000	52,692,480	3,425,239	8,259,915	16,269,304	3,173,427
1857	31,960,000	48,643,173	2,623,756	6,800,591	12,366,997	3,322,141
1858	32,607,950	53,396,741	9,015,146	6,096,417	21,418,518	3,410,101

The capital and amount of dividends for many years have been as follows:—

	Capital.	Dividends.	Per c't.		Capital.	Dividends.	Per c't.
1845..	$17,480,000	$1,112,100	6.36	1852..	$24,100,000	$1,904,000	7.71
1846..	18,180,000	1,196,000	6.57	1853..	24,100,000	1,887,750	7.87
1847..	18,030,000	1,269,300	7.00	1854..	27,610,610	2,341,000	8.00
1848..	18,330,000	1,373,000	7.55	1855..	31,691,268	2,494,000	7.86
1849..	19,280,000	1,477,300	7.66	1856..	31,960,000	2,464,100	7.70
1850..	19,760,000	1,539,000	7.68	1857..	31,960,000	2,437,950	7.60
1851..	23,660,000	1,754,373	7.68				

The capital here given is the amount which earned dividends in the year; thus, in 1854, the capital increased to $31,018,610, but the amount which operated in the year was $27,610,610.

The creation of banks was pretty rapid up to 1835. The next return in the above table for 1840, shows a diminution, in consequence of the great revulsion. Since then the course has been progressive, but it would appear that the increase of loans in Boston has not been greater than the progress of business demands, if we take the extent of business as a measure. Thus, in 1825 the imports and exports were together $21,000,000, and the bank loans were 75 per cent of that amount. In 1835, when speculation ran high, the imports and exports were $27,000,000, and the bank loans $28,647,000, or 105 per cent of the sum of external commerce. In the last year the imports and exports were $73,100,000, and the bank loans were $53,400,000, or 72 per cent of the amount; or, in tabular form, thus:—

	Sum of commerce.	Loans.	Per cent.
1825	$21,000,000	$15,823,000	75
1835	27,000,000	28,647,000	105
1845	30,962,738	30,945,886	100
1854	65,740,461	51,081,808	80
1857	73,167,001	51,000,000	70

The bank table above is the annual statements; and in 1857 it is given at the moment of panic; in comparing with imports and exports, we have taken the average; we find, therefore, that the amount of bank facilities for the business done was actually less than usual. If we deduct from the exports the $13,000,000 of specie that went through from New York, and may not have added much to bank business, and do the same for 1854, the result will be the same in both years, viz., that the bank loans were 85 per cent of the imports and exports. If, now, we bear in mind the great development in railroads, in internal trade, in manufactures, in California business, and in local valuation of property, as well as the increased business in securities of all kinds in Boston, we cannot but be struck with the fact that, as compared with the previous periods of 1845 and 1835, the business was conducted far more on capital and far less on credits. The revulsion of the last fall certainly shook some of the dead boughs from the "big tree," but the giant trunk is still unshaken.

The Boston Board of Trade has made its fourth annual report, and is certainly a model report. The Board is composed of 900 of the leading merchants of Boston; George B. Upton, President, and Lorenzo Sabine, Secretary. The present report contains 230 pages, replete with information of general interest. The report takes the ground that the banking capital in the city is insufficient, and states that they had applied for an increase of the banking capital to the Legislature without success. The Board are also opposed to the restraints upon usury. If restraints were also, through a general law, removed from the free creation of bank capital, the prosperity of the place would doubtless be promoted. A large amount is now employed upon private capital. The annual report of the United States Secretary of the Treasury shows the amount of private banking capital in Boston to have been $20,000,000, and perhaps, in its operation, may be found one cause of the diminished action of corporate institutions.

Art. IV.—THE ADMEASUREMENT OF SHIPPING.

NUMBER III.

THE basis of a just system of ship admeasurement has rarely been discussed in this country. In England it has been settled that the most eligible is founded on the internal capacity, or the cubature of space within the hull and under permanent decks. The grounds of this preference are, mainly, that the predominant cargoes of British commerce consist of *stowage* goods, and which fill the hold before vessels are fully laden, or brought down in the water to the sea going line of safety; and, moreover, that the profits of the vessel, being dependent on the cargoes carried under decks, all taxes or dues paid the government should be assessed and collected upon the capacity for such carriage. It follows, if this be the best basis for the appreciation of shipping by the fiscal officers of government, that it is also the most suitable for the mercantile community, since there can be no good reason why a proper one would not admit of general adoption.

We have examined thoroughly the views of the advocates of internal admeasurement in Great Britain, and find that we cannot limit our survey of ship tonnage to so narrow bounds. The stand-point in that country is one peculiar to its commercial system, viz., the payment of dues on tonnage. This consideration is paramount in importance, and completely over-shadows all others. The case is different in the United States. Here the subject may be viewed in every aspect, without prejudice from any single influence; there the discussion turned upon the superior eligibility of an external or internal system that should equalize (upon shipping generally) the onerous exactions of the customs. Broad and discriminating views of the uses of ship admeasurement and registry were scarcely entertained. With regard to external tonnage, it has been conceded by its enlightened opponents that it might be fairly and equitably applied to ships-of-war, yachts, ships carrying dead-weight cargoes, iron, lead, copper-ore, &c., and to all vessels of such construction as can contain more than they can carry or float with safety on a voyage. To this list they would doubtless allow us to add all vessels carrying *deck-loads*, which are not permitted, however, to British shipping. In the United States, this schedule of freighting is very extensive—far greater than in England, but we have not the means at hand of showing the relative proportions of tonnage engaged in carrying the different descriptions of cargoes stowed *under* and *upon* deck in the two countries.

It seems to us that a fundamental error is committed in assuming that the "predominant cargoes of commerce" should, of right, decide the eligibility of a system of admeasurement for shipping. Ship tonnage appears to be one of those questions which may be settled by a solution consistent with the rights of all interests, and requiring sacrifices from none. A *just* system is wanted, but justice is due to *all*; it can recognize no claims of partiality, either in behalf of majorities or minorities. The best system for the greater number of vessels, might be the worst for the smaller number. Why should the requirements of these be over-shadowed by the numerical preponderance of those? Upon no principle of justice can the interests of the greater number prevail in antagonism to the lesser, but

only upon the ground of superior power. It should be shown first, that it is necessary and proper for one class of shipping to give precedence to another before deciding that internal or external measurement, exclusively, should predominate.

The main characteristics of freighted commodities are described by the terms of *bulk* and *weight*. According to the fitness of things, the lighter wares of commerce are best appreciated by *bulk*, and on ship-board they demand STOWAGE; the heavier articles are properly estimated by *weight*, and for transportation they require BUOYANCY. Out of this natural relation of cargoes to gravity and space, arises the distinction which is made by shippers between goods to be freighted by the "ton," "barrel bulk," or "cubic foot," the latter being the most convenient unit of mensuration for bulk. The law of utility has thus settled popular modes of appraising the transit service of vessels by the adoption of *two* principles rather than one. Why should either be ignored in framing standard rules for computing before-hand the freighting capabilities of shipping, and in order to register the same? Why not construct a tonnage system to meet the public wants, as well as the government requirements? What admeasurement is useful for is to furnish the knowledge of how many barrels, bales, or cubic feet (which will answer all such purposes) a given vessel will stow, or what number of passengers her space may accommodate, and, also, how many tons of goods, &c., she can carry. Information on the first point is only to be obtained by surveying the internal capacity; and for knowledge on the second, it is necessary to measure the external magnitude of the ship, as upon it depends her powers of buoyancy. It is plain, that if we do not learn how much a vessel can hold, and how much displace for cargo, we must be entirely ignorant of its capabilities for usefulness; and if we know but one of these things, then we can be only half informed. The conclusion cannot be otherwise, since the character of a cargo proposed for transportation determines the kind of knowledge required from admeasurement—whether of containing *bulk* or bearing *burden*.

To our mind it is plain that shipping should be admeasured both internally and externally, and the results shown on the register. If vessels never carried dead-weight cargoes, or never freighted stowage goods solely, and if all vessels transported the same description of cargoes, then a simple system of tonnage, founded on internal or external bases, as the case required, might answer all commercial purposes. But even in such case, it could be maintained that naval architecture itself demanded full and complete knowledge of the capabilities of vessels, in order to mark the advancement or retrogression of ship-building. It is highly advantageous to possess the means of analyzing the construction of vessels, and of comparing their performances with their cost, repairs, and sailing expenses. Ship builders and owners want the means of pointing out and perceiving why a ship is profitable or the reverse; and so far as this knowledge may be involved in the complete admensuration of the hull, there can be no valid objections to supplying it. Indeed, an intelligent purchaser requires to know all that can be learned of a vessel in market; and the skillful ship-builder equally demands that the excellence of his efforts be properly appreciated, through a complete exposition of fundamental principles applied to his handywork, so far as this may be done by admeasurement.

Therefore, not only do the general requirements of commerce indicate

the utility of a comprehensive system of admensuration, but the diverse methods of marine construction also justify its adoption. When we consider that the shells or hulls of vessels are not proportionate in thickness nor in weight, being either constructed with disproportionate scantling of timbers, or unequaled density of materials, it must appear manifest that just results cannot be obtained by using only one mode, or half-mode, of measurement. It is important that the capacity for *stowage*, depending on the interior size of a ship, should be set forth in the register along with the capability for burden. Two vessels may be built from the same model and moulds, and, nevertheless, differ widely in their exterior and interior magnitudes, by reason of the difference in materials employed and modes of construction adopted; and we want a law for appreciating them when built, that will take them precisely as they shall be found, and yield a true expression of the peculiar points of each.

In connection with this view of the subject, it is material to consider that the possibility of fraud, by constructing vessels for evasive measurement, will always exist under a partial system of admeasurement. With fraud comes folly in ship-building, hazarding the safety of life and security of property. One great object of men in every pursuit is to get the most in the market for their money. All want large measure. Hence, if a ship-owner be called upon to pay taxes or dues on his vessels, the desire is to discharge the claim with the smallest sum possible; if the amount be dependent on *tonnage*, then he would have it the *minimum* under the law. This is natural and proper. But the law is bound to be just, and must levy its exactions by an uniform rule. It should take care that its prinicple is correct, and that no evasion can be accomplished by ingenious builders or saving owners. Sometimes one of these parties is at fault, and sometimes the other, and often both, but the law or its application must always be defective to render evasion of measurement practicable.

The builder, fabricating by the ton, is interested in having his ship fully measured, and in primarily choosing such form and proportions for her as will be most profitable for him to construct—his reputation, taste, and honor being the only limit to his skill and fitness in these matters. On the other hand, the owner views the burden or capacity as of prime importance; he does not wish her to be over-measured, and he usually assents to the builder's suggestions, or dictates the dimensions and design himself, as he may understand his interests and the bearing of tonnage upon marine constructions. If *large* measurement can be obtained, it may be, and often is, sought without regard to the inquiry—whether it will pay to spoil the ship in order to improve the register? Between these parties, the government surveyor should intervene to do exact justice, giving twelve inches to the foot, and no more, to builder, owner, and fiscal officers.

But, were it impracticable to build shipping so as to avoid just measurement, still there might be particular instances in which, what would be tantamount, evasion might be practiced under a partial method of tonnage like the British. For example—vessels always carrying cargoes of stowage goods of a perishable nature, cannot expose any portion of them to weather with impunity; this is not the case with those always carrying other descriptions of light freights which will bear exposure; they may stow a portion of cargo *on deck*. Now the bulk of two such different cargoes may be equal, but who does not see that the vessels to transport them may require to be from *one-third* to *two-fifths* larger in the former case than the latter? In other words, vessels carrying deck-loads evade

internal measurement to the extent of the contents of the cargoes so carried. In like manner, ships always carrying metal cargoes would be over-measured under such a system, since they have space which their cargoes cannot occupy. Hence, it might be expected that shrewd men would undertake the construction of such vessels to avoid any undue excess of roomage under decks, adjusting the tonnage capacity of the hold to the bulk of the freight.

Internal admeasurement then, is only legitimately adapted to vessels carrying a certain description of freights, which fill the hold no more and no less. On the other hand, external admeasurement would best measure all vessels carrying cargoes which do not fill the hold, and likewise those that carry deck-loads, but it would over-measure shipping engaged in the transportation of stowage goods only, unless deduction should be made for the contents of the shell.

One of the most material considerations in framing a system of admeasurement should be, how its operation will effect the strength, velocity, and sea-worthiness of vessels, since these essential qualities should receive no prejudice thereby, but be encouraged rather. It must be a bad system that will influence in any way faulty practices in ship-building. Under a correct system of internal tonnage, the builder's object will be to furnish the required space of hold with the least amount of materials and labor; such economy tends to produce thin shells and weak hulls, unless a scientific distribution of wood and iron shall also be studied. On the other hand, the owner will probably strive for a superabundance of materials and labor, and this the builder may feel inclined to off-set in their quality, unless the price should be satisfactory. Under a correct system of external measurement, both builder and owner would unite in enlarging the interior capacity at the expense of the shell thickness in some cases, but in others, only the former party could be so interested. Under both systems united, the proportion of shell to interior and exterior tonnage would always be shown, and any excess or deficiency would be immediately seen to detract from the value of a vessel.

But there are good reasons why the thickness of vessels' shells should differ in certain cases. The strength of ships should bear proportion to the weight of their cargoes, as well as to other important circumstances; hence, a vessel to carry dead-weight cargoes, should herself weigh more than one to freight cotton or stowage goods; and another to carry only passengers, mails, &c., might properly weigh even less, on this ground, since their strength depends greatly upon the quantity of materials used. The foregoing is only true, however, of vessels that are to maintain equal rates of *speed*, for it is another axiom of naval architecture, that the strength of vessels should bear a relation to the velocity at which they are to be propelled. As the velocities and purposes of shipping are various, there can be no uniform rules of scantling for the thickness of their shells, and it is manifest that great differences must always prevail. But there are causes inherent in the very materials from which vessels are constructed, which combine to increase this legitimate disparity in the thickness of their hulls. These are the kind and quality of those materials—whether wood or metal, and of a strong or weak description.

Under a system of strictly internal measurement, a vessel of one hundred tons register, and paying taxes and dues as such, may, if it suits the interests of owners, be so constructed as to carry five hundred tons weight of cargo, by adopting a double, false, or unusually thick shell for the sides

and bottom. On the other hand, some of our largest steam vessels—floating palaces of passenger transit—by reason of their capacious accommodations and great space for the stowage of light freight, "under cover of permanent decks," would measure 5,000 to 6,000 tons, yet carry, with difficulty, 1,000 tons of heavy freight. The shell of their upper works are merely the slender fabrications of the joiner, and scarcely *wind-proof*. Will any one maintain that these extremes are commensurable? Would not their incongruities be corrected by ascertaining also the external mensuration? With a full knowledge of both interior and exterior capabilities, a correct idea of the peculiarities of each kind of vessel could be arrived at. It may be well to show, from an English author, the proportions which the hulls of vessels bear to their internal capacities in the following cases:—

No. 1. *East Indiaman*, with three decks, of the old usual form, 1,470 tons, by present English rule, proportion of shell to the internal cubature, calculated to the upper deck, equal to eighteen per cent.

No. 2. *East Indiaman*, 1,419 tons, three decks, unusually sharp, ratio 21.4 per cent.

No. 3. *East Indiaman*, 1,057 tons, two decks, rather sharp, but not deep, ratio 21.9 per cent.

No. 4. *Free Trader*, modern form, 774 tons, ratio 22.4 per cent.

No. 5. *Free Trader*, full and deep, 666 tons, ratio 21.7 per cent.

No. 6. *Free Trader*, usual form, 478 tons, ratio 24.6 per cent.

No. 7. *Coasting Brig*, usual form, rather shallow, 184 tons, ratio 26.7 per cent.

No. 8. *Collier Brig*, deep and full, 149 tons, ratio 25.8 per cent.

No. 9. *Coasting Brig*, usual form, rather shallow, 98 tons, ratio 28.4 per cent.

No. 10. *Fruit Schooner*, very sharp and shallow, 109 tons, ratio 30.1 per cent.

Small vessels are shown to have a greater proportion of shell than large ones, and sharp and shallow vessels than full and deep ones. Internal measurement would, therefore, to a small extent, favor the smaller and sharper classes of shipping if engaged in heavy freighting; but it would not prove an uniform criterion of the bulk of vessels, since some oak-built, as above, have *one third* greater thickness of hull than others, and the same is, no doubt, true of vessels built from other materials.

The disparity in the thickness of shells of iron, oak, and fir-built vessels will appear from the following table by the same author:—

Internal tonnage. Tons.	Ratio of oak shell to internal capacity. Per cent.	Medium thickness of sides of oak vessels. Inches.	Medium thickness of sides of fir* vessels. Inches.	Medium thickness of sides of iron vessels. Inches.
1,400	18.	22.26	.....	7.
1,000	20.5	20.88	28.42	6.96†
700	22.5	18.5	.....	....
600	23.25	17.28	22.2	....
500	24.	16.44	21.12	5.48
400	25.	15.5	19.68	....
300	26.	14.7	.....	....
200	27.	12.9	17.68	4.
100	28.	11.16	.....	....

* The term fir includes all soft woods, pine, larch, spruce, &c.

† The sides of iron vessels, generally speaking, may be reckoned of *one third* the thickness of oak vessels of equal tonnage.

We know of no similar investigations having been conducted in this country, but there is reason to believe the irregular thickness given to the sides of vessels is at least as great, if not greater, than in England. The quantity of timber and iron in the shells of long sharp vessels greater than that in short full vessels of equal internal tonnage, will range from *three* to *ten per cent.* It is manifest, that if designed for the carriage of stowage goods under deck, the finer-formed vessels would be disadvantageously measured by an exclusive external system, because their large proportion of shell would detract in ratio to its preponderance from the interior capacity. But to transport *burdens* purely, these same fine vessels might experience no inconvenience from the law by the side of full ones. In like manner, small vessels could only have fair play with large ones when both carried mixed cargoes of stowage and dead-weight goods; and iron and wooden vessels would be measured according to no fixed principle of admensuration, but justice and injustice would prevail just as vessels might happen to be built or employed.* The same thing is likewise true of the operation of an exclusive system of internal tonnage, though it would be less mischievous than external in the case of iron shipping competing with wood.

The explanation of the whole matter is this:—Vessels may be relatively large internally or externally. To freight "stowage" goods they are required to be large interiorly, but to carry dead-weight cargoes they should be large exteriorly, and also of moderate weight. Now, the ship which is capacious in the hold may be deficient in external magnitude, and *vice versa.* In other words, we say, that vessels of equal external measurement will be found very unequal in internal capacity, and vessels of equal internal measurement will be found very unequal in external bulk or displacement. While it is true that many ships are constructed with a view to the space for stowage and accommodations for passengers, (under decks,) it is equally true that other vessels are built with direct reference to transporting dead-weight cargoes, or their equivalents, dependent upon the displacement. In one case, the utility of the ship is based upon the hold, and in the other, upon the bottom. Not only so, but the vessel which was built for one speciality of commerce may be also employed, at times, in another and opposite one; while it is also the practice to build vessels for general purposes of freighting. These can excel in neither extreme of light or heavy transportation, and, consequently, cannot be admeasured justly under any except a two-fold system of tonnage.

Reverting to the foregoing tables, it is seen that long and sharply formed vessels, of the larger class, have more timber in their hulls to the amount of one, two, three, or four per cent of their internal capacity, (according to their sharpness,) than short, full modeled vessels of equal interior tonnage, and in the smaller class of vessels from one to two per cent. And that in vessels of the usual type, the larger the vessel, the less the timber, in proportion to internal capacity, used for the shell, by about three-quarters per cent of the capacity for every one hundred tons increase.

The following table will show the advantages that would be given by external measurement to *thin-sided* vessels in their internal capacities for stowage. (In cases where the reduction of thickness lessened the weight of

hull also, of course there would be an advantage for carrying dead-weight cargoes.)

Class of vessels. Tons.	Amount per cent of the internal capacity that is due to one inch thickness of the shell. Per cent.	Number of inches the shell of the oak vessel is thinner than that of the fir vessel. Inches.	Number of inches the shell of the iron vessel is thinner than that of the oak vessel. Inches.	Number of inches the shell of the iron vessel is thinner than that of the fir vessel. Inches.
1,000	1 nearly	7.54	14 nearly	21.46
500	1.46	4.68	10.96	15.64
200	2.09	4.78	8.9	13.68

Now, if these vessels in each of the above classes be built of the same external form and dimensions, it is plain the iron vessels would be able to contain more goods than the wooden ones, and the oak vessels would also contain more than the fir, because of the disparity in thickness of shells.

The following table will present a synopsis of these advantages :—

Class of vessels. Tons.	Advantage of oak over fir vessel. Per cent.	Advantage of iron over oak vessel. Per cent.	Advantage of iron over fir vessel. Per cent.
1,000	7.54	14.	21.46
500	6.8	16.	22.8
200	10.	18.6	28 6

These tables are predicated upon the hypothesis that the vessels are all to be engaged in freighting stowage goods, by which is meant goods that fill the hold before the vessel is brought down in the water to the limit of a safe sea trim. If these vessels should be employed in carrying dead-weight cargoes, or their equivalents, the interior capacity would not then limit the amount of cargo to be taken on board, but this limit would be fixed by the external bulk of the ship in conjunction with her own weight. The thickness of the shell, or sides and bottom of hull, would not in this case, as in the other, exert an influence as mere thickness, subtracting from the capacity; it could act only as increasing or diminishing the aggregation of materials, and thereby determining the density or weight of the hull. Instead of considering the thickness, we would now investigate the weight of shell, and it is apparent that the vessels weighing least would carry most, all other conditions being the same.

It is not easy to procure the requisite data for comparing the weights of iron and wooden vessels of every description, and such tables as we have seen cannot be implicitly depended upon for correctness, but we will here assume that the following results of inductive calculations from iron and oak-built steamers and sailing ships in the British navy are sufficiently correct.

In the case of *steam* vessels of equal displacement, the vessel built of *iron* is more buoyant than the vessel built of oak, by about 16 per cent of the weight of the wood hull. In the case of *sailing* vessels, the iron hull is more buoyant than the wood, by about 23 per cent of the weight of the wood hull. It follows, that an iron sailing ship will carry about 13 per cent greater weight of cargo than an oak-built one of equal displacement; and an iron steamer about 9 per cent more than her consort of oak. But it can be shown, that a few good oak ships have been built, even in British dockyards, that weighed no more proportionately than some of the heavier iron ships, and we are much inclined to doubt the superior carrying power of English iron over American shipping built of

mixed woods. In the case of oak and fir built ships, the latter, weighing from 10 to 15 per cent less, would carry from 5 to 8 per cent more dead-weight cargo. It may be calculated that iron shipping would not certainly have a greater advantage over fir than fir over oak in any case.

Let us now reverse the system of admeasurement, taking internal for external, and suppose the foregoing three classes of vessels to be of equal interior dimensions, form, and capacity. All classes would evidently fare alike for advantages, there being none should they be employed in freighting *stowage* goods. But match the fir vessels against the iron to carry dead-weight cargoes, and the tables would be turned; the inequalities of admeasurement would again become striking.

The following table will show the relative advantages of *thick-sided* (American) vessels for carrying heavy cargoes under a system of simple internal measurement:—

Class of vessels.	Advantages of oak over iron vessels. Per cent.		Advantages of fir over oak vessels. Per cent.	Advantages of fir over iron vessels. Per cent.	
Tons.	Steam.	Sail.		Steam.	Sail.
1,000	6	2	8.54	14.54	10.54
500	10	6	8.	18.	14.
200	11	7	10.	21.	17.

It is scarcely possible to arrive at exactness in these tables, but enough of truth can be shown in them to make it plain that any partial system of admeasurement cannot be applied with equal propriety to all vessels, because they are so variously constructed and employed. The greatest advantage, as above, is of wood over iron steamers; the reason is that iron vessels of the same dimensions and gross tonnage, whether to be propelled by steam or wind, are built of the same scantling, or thickness and strength; whereas wooden vessels, if intended for steam propulsion, are always constructed of less scantling or amount of shell than those for sail power. According to Lloyd's Rules for the Regulation of British and Foreign Shipping, "steam vessels under 300 tons may have the scantlings of a sailing vessel of *one-third* less tonnage, and those above 300 tons, the scantlings of a sailing vessel of *one-fourth* less tonnage.

It is estimated in England that about three-fourths of the whole number of cargoes carried consist of stowage goods, not dead-weight; we think the proportion is rather less in the United States, especially when we include with dead-weight cargoes those which are manifestly equivalent thereto; for instance, hay, lumber, timber, staves, wood, &c.; yachts and ships-of-war should also be admeasured, and may be included with the shipping of this country that carries heavy cargoes. Perhaps one-half the tonnage of the United States may be thus classified.

Is has been urged by some persistent advocates of internal admeasurement that if vessels were measured externally, alone, it would influence ship-builders to reduce the thickness of the hulls, and thus produce unseaworthy vessels; but, on the other hand, should the measurement be internal, it would serve to encourage the building of still stronger and better ships than now used, by consequence of the law disregarding the thickness of shell. But this argument weighs nothing with builders and owners constructing vessels to carry dead-weight cargoes; with them, if the external bulk of hull is not to be computed in tonnage, it may appear proper to unduly increase the shell thickness, for thereby internal tonnage would be diminished, and the ship made to carry immensely in proportion thereto.

There is no better way to deal with ship tonnage, and leave every owner and builder at liberty to construct shipping suitable to each particular trade, and induce the fabrication of the strongest, swiftest, best, and safest descriptions, than to measure all vessels both internally and externally. The difference between the tonnage, exterior and interior, would exhibit *the tonnage of the shell*, and show, at a glance, of how much material it was composed. The *mean tonnage* would correctly represent the average utility of a ship, or her value for general usefulness—heavy or light freighting. The capacity for stowage would be furnished by the *tonnage of the hold;* and the accommodation for passengers by the *tonnage of the cabins;* and the capability for burden would be shown by *the tonnage of displacement*, or that of the external bulk. The external measurement should be so exhibited as to reveal the weight of a ship, when her light draught of water is defined, and show by a scale (which may be copied from the register and hung up in counting-house or cabin) how many tons of dead-weight she will carry when immersed to any given line of flotation; and likewise, what proportions of buoyancy remains, as reserve power, for the contingencies of inclement weather.

With regard to the payment of dues, taxes, and charges rateable *per* "tonnage," these ought to be made on capacity or displacement, according to the employment of a vessel in every case—the true principle being to take the same basis for assessments as depended on for profits; but, as this might be rather difficult in practice, and sometimes indeterminable, perhaps it would be best to fix upon one or the other, or the *mean* of the two mensurations, as a standard. In the generality of cases, the mean tonnage would serve as a useful criterion of value by which to build, buy, and sell shipping, since it would have an equalizing action between the opposing objects of marine construction—some vessels being intended for burden and others for capacity mainly. We do not see why it would not be eligible also for the fiscal purposes of the government. But the shipping community need not, and should not, like government, be confined to one standard only; utility requires two, and a third can be evolved from these whenever demanded. Moreover, it should be kept in view, that the admensuration of vessels is an institution for the convenience of those whose interests are bound up in shipping; and although it must be conducted by government officers, yet the people are more deeply interested in it than the government can be, in this country at least.

The system of internal measurement which we would recommend for adoption, is that now in use in Great Britain; we have shown its general provisions in our first article, at page 561. In practice its results express the entire interior cubical capacity of a ship in tons of 100 cubic feet each; so that it is only necessary to multiply such capacity by 100 (adding two cyphers to the right) and the entire internal space of the vessel, in cubic feet, is immediately shown, and from which an owner can calculate the net space in cubic feet for stowage of cargo, by first making such deductions for passengers, provisions, stores, &c., as the circumstances of the particular voyage may require. The deductions necessary to be made from the interior tonnage of the various sizes of vessels, and according to the different lengths of voyages, will range from 15 to 35 per cent; but it is considered in England, under the experience of the new and present law, that for the average of cases, to find the measurement cargo, of 40 feet to the ton, which a ship can carry, it will answer to multiply

the number of register tons contained under her tonnage deck, as shown separately in the certificate of registry, by the factor $1\frac{7}{8}$, (or 1.87,) the product being the approximation sought. In the case of steam vessels, the spaces occupied by the machinery, fuel, and passenger's cabins, under the deck, must first be deducted, before the measurement factor is applied.

The register tonnage given to vessels under this system appears to be less than by the law of 1836, called "new measurement," which it has superseded. From the results of two years' experience in remeasuring the shipping of Great Britain, the average diminution of tonnage amounts to about $7\frac{1}{2}$ per cent, on about 6,000 ships. The greatest and least deviations are about 20 and 3 per cent; and as there can be no doubt of the present law giving to each ship with practical accuracy her entire internal capacity in tons of 100 cubic feet each, the result shows to what extent the former law was imperfect in its operation.

The system of external measurement which we advocate for adoption in conjunction with the above, would differ in no respect from it, except in being applied outside the vessel instead of inside. It would embrace measurements to be taken in the same manner, and computations to be made by the same rules. The external bulk of the ship would be ascertained up to the upper surface of the planking of the upper deck, or to whatever height the vessel may have been constructed to keep out the seas from the interior of the hull. In cases where poops and fore-castles may be appropriated to freight or passengers, the same would be measured externally as internally. The cubature, being found in feet, should be divided by 100, the same as for internal measurement, to find the tonnage. A scale of displacement, showing the vertical distribution of *buoyancy* from the keel to the upper surface of deck, should accompany the register; and from it could be found, at a glance, the number of tons of displacement, of 100 cubic feet each, contained between any given light line of flotation and one to which it might be deemed desirable to load a ship; which being multiplied by the factor $2\frac{4}{7}$, (or 2.86,) would show the dead-weight cargo that could be carried by such vessel. Many other useful problems could be solved by the aid of such a scale of tonnage.*

This two-fold system would constitute a foundation for scientific investigations of the powers and capabilities of shipping, that can be obtained in no other way. The two measurements in conjunction, would complete a basis for all the useful estimates ever required by merchants, masters, owners, or architects. Those who desired could know, relatively, all about vessels in which they were dealing—their capacity, burden, weight and bulk of shell, distribution of buoyancy, &c., and possess the data for anaylzing their sailing and carrying qualities, and also the means for reproducing their forms, if desirable, even after the destruction of models, drafts, and moulds, and the annihilation of the vessels themselves, so long as the records of the Custom-house should be preserved. By the aid of such knowledge as this complete system would afford, the ship-owner could establish consistent rules for his own guidance in purchasing vessels; and the improvements in ship-building could be demonstrated by sound principles of utility—changes which are not improvements could

* The writer believes he was the first in this country to calculate and draw a full scale of displacement to the height of the deck, fore and aft, for above purposes, and place it in a vessel's cabin, which he did for the topsail schooner *Clipper City*, a vessel of his construction, on Lake Michigan.

be shown in their true character. But we cannot occupy the space necessary to elucidate and illustrate all the advantages of a complete system of tonnage registration, nor hope to sketch our ideas fully in this brief allusion to them; neither can we here pretend to set forth all the minutia of the processes of admeasurement.

We may, however, advert to a notion held by a few persons, that the method of arriving at a ship's tonnage, under any system, should be so extremely simple that those entirely ignorant of marine architecture, drafting, and calculations would be able to perform it. It may be conceived why Custom-house surveyors might feel inclined to raise this objection to a purely practical and scientific process of admensuration, which their talents and education did not qualify them to conduct, if such was the case, but surely no intelligent and disinterested mind is incapable of appreciating a true mode of tonnage, and agreeing to the propriety of its application by qualified officials. It has been shown that any, except legitimate modes, must fail to work equitably and uniformly, or furnish correct results; and if unqualified persons cannot conduct such processes as are necessary to ascertain the *true* tonnage of vessels, then those who may be so qualified should perform them, no matter if it should necessitate an entire change in the *personnel* of the measuring surveyors, or the establishment of a new branch of surveyorship in the customs.

In England, a competent naval architect has been appointed surveyor-general of shipping, and to his office, at London, are transmitted the returns of surveys made by his assistants at all the ports in the kingdom. Over these returns the surveyor-general exercises a close supervision; and by means of detective curves applied to the measurements, and the transverse areas of vessels, shown to have been surveyed, he proves the correctness of the results attained by his subordinates. Errors amounting to only *one-third* of a ton can be readily detected; and it is found, that with all the care induced by the certainty that any mistakes will be discovered at the central office, still it will happen that they do occur occasionally, proving that some check of this kind would be absolutely necessary under any law of admeasurement. The surveyor is also continually finding errors that have been practiced, by accident or design, under the former law, amounting to from 5 to 15 per cent. From these facts additional evidence may be gathered, not only of the propriety of entrusting such important operations, as the measurement and registry of shipping, to qualified officers, but of having a system of tonnage worthy of the ministrations of enlightened men.

One of the advantages to be gained by adopting the same processes that are now used in England for computing internal tonnage, will consist in making these the basis of an INTERNATIONAL SYSTEM; and should the external, (or complementary,) system, which we have also proposed, work as usefully as anticipated, there will then be ground for hope that our transatlantic brethren will, in turn, adopt it; and, in which case, we will have conferred an equivalent for the partial system that we propose to borrow from them. Indeed, there are already in Great Britain strong advocates of external measurement, and scientific men can never cease to appreciate its exceeding usefulness from their point of view; but hitherto no practical writer has come forward in that country to unite internal with external admeasurement, and show how they may be rendered pre-eminently useful as co-adjutory systems.

It may be proper to present the reader here with an epitome of the English rule, which is also, and equally, eligible for obtaining tonnage externally.

Length.—Taken inside on tonnage deck, (in all vessels under three decks, the upper deck is the tonnage deck; in all other vessels, the second deck from below,) from inside of plank at stem to inside of midship stern-timber or plank there, (as the case may be;) the length so taken, allowing for rake of bow in the thickness of the deck, and for rake of stern in the thickness of the deck, and one-third of round of beam also, is to be divided into the prescribed number of equal parts (which determines the stations of the areas) according to the length as follows:—

Class 1			Length of 50 feet and under into 4 equal parts.				
" 2			" above 50 to 120 feet " 6 "				
" 3			" " 120 to 180 " " 8 "				
" 4			" " 180 to 225 " " 10 "				
" 5			" " 225 and upwards into 12 "				

Areas.—Area No. 1 is at the extreme limit of the bow. Area No. 2 is at the first point of division of the length. The rest are numbered in succession, the last being at the extreme limit of the stern.

Depths.—Taken at each point of division of the length or station of each area, from the under side of tonnage deck to the ceiling at inner edge of timber-strake, deducting therefrom one-third of the round of beam; the depths so taken are to be divided into four equal parts, if midship depth should not exceed 16 feet, otherwise into six equal parts.

Breadths.—Taken at each point of division of the depths, and also at the upper and lower points of the depths.

For the tonnage, apply Sterling's rule of alternate multipliers to determine, first, the areas, at their stations, from the breadths above directed to be taken; next, by the same rule, compute the contents from the areas and the equal parts of length; finally, divide the result, in cubic feet, by 100, (cutting off two figures at the right,) and the quotient will be the internal tonnage sought.

To obtain the external measurement of a vessel by the same procedure, the depths may be taken from the top of deck, (deducting one-third of the round of beam,) to the external surface of the garboard-strake, (allowance being made for its extra thickness if such is the case,) and re-divided, so that the breadths may be taken at equal distances apart; the breadths must next be taken from outside to outside of the plank of the hull. The remainder of the process will be identical with that described for internal measurement. The most convenient method for getting the measurements *through* the hull of wooden vessels would be by boring with an auger in the direction they are required to be taken, where this may be done. But this course would not be practicable for iron ships, few of which, however, are built in the United States.

A better way to get the measurements of vessels for external survey, (especially the breadths, which would be most difficult,) would consist in delineating the internal sections, at the stations of areas, which had previously been obtained for internal survey, and then ascertain the thickness of the hull in a right angular direction, at each point where a breadth or depth had been taken; then, by the aid of drawing, describe the external sections without the internal, and take measurements from the outside section, so found, for the computation.

The external bulk of vessels may also be calculated from the shipbuilder's drawings, the same having first been verified by measurements of the ship, and the thickness of planking likewise ascertained and allowed for. It may be arrived at by a system of measurements taken wholly from the outside of hull, which would be too tedious to describe here. In our remaining space we propose to consider the question of allowances which are, in Great Britain, made to *steam* vessels for the space of hold occupied by the engine-room.

The exemption of the engine-room from tonnage was first introduced in England in 1819, and was obviously intended to encourage the building of vessels for steam navigation, although these grounds of partiality are not indicated in any *public* records. The utility of steam vessels has long been established, and would not seem to require longer the fostering hand of government to sustain and develop their qualities. It is not without reason, therefore, that the owners of British sailing vessels complain that the remission of the engine-room from the chargable tonnage of the vessel, creates an unfair competition between steam and sailing vessels. In paddle-vessels, about two-fifths, and screw-vessels, one-third, of the gross tonnage is thus exempted from the payment of dues.

On the part of steam vessel owners it is alleged, that the spaces occupied by the engines and boilers—the propelling machinery—being a fixed and permanent abstraction from the capacity, cannot, in justice, be considered as forming any part of the stowage capacity of steam vessels, any more than the spaces occupied by the masts, yards, rigging, and sails—the propelling machinery of sail vessels—can be considered as forming any part of the capacity of a sailing vessel.

On the other hand, it is contended by the general shipowners, that with regard to the space lost to cargo on account of the engine-room, there is a counterbalancing quality gained, which enables a steam vessel to earn more freight than a sailing vessel in about one third or one-fourth of the time occupied by the latter, since the rate of passage money and freight of goods is from three to four times greater by steam than sail. The saving in the dues on tonnage alone constitute a snug profit to the steamship owner. There being no abatement on tonnage to sailing ships, on account of propelling machinery and space occupied by stores, &c., for longer voyages, none should be made to steam vessels; or, if made to one class, it should also be made to the other. As to the political view of the question, it is alleged, no special encouragement is necessary to insure the use of steam shipping for all proper purposes. It is shown also, that in addition to the engine-room, there are spaces excluded in its non-measurement which are totally unconnected with its services; for instance, the spaces in the larger class of vessels betwixt decks above the side bunkers, which are legally fitted and used as store-rooms or passenger's cabins, and these spaces cannot certainly have any claims to a reservation from admeasurement.

Notwithstanding these considerations, Great Britain pursues the policy of fostering, at the expense of sailing vessels, the use of an immense fleet of coasting steamers, and largely increasing the number engaged in foreign trade. The steam tonnage of that country may now be set down as about 12 per cent of the total tonnage of her mercantile marine, whereas the statistics will show it to be about one-third less, owing to the diminished measurement assigned to this class of shipping. As we are not able to

appreciate the propriety of thus leaving out of computation any space of hold, or bulk of displacement, our approval cannot be given to this feature of the English law; and we can only hope that it may yet be changed, for the evil is one that affects American commerce, at least to the extent that our shipping, both sail and steam, is brought into competition with the *steam vessels* of England. The trade with that country, under this prime influence, is fast passing into the hands of her *iron screw steamers*, and the best portion of it may soon be monopolized by them.

W. W. B.

Art. II.—DEBTS AND FINANCES OF THE STATES OF THE UNION.

WITH REFERENCE TO THEIR GENERAL CONDITION AND PROSPERITY.

NUMBER XII.

WISCONSIN.

TRACT OF COUNTRY—LATITUDE—BOUNDARY—SURFACE OF COUNTRY—RIVERS—PORTAGE CANAL—LAKE SHORE—FIRST SETTLEMENT—TERRITORY—ERECTED INTO A STATE—GRANT OF LANDS—AREA—DISTRIBUTION OF LANDS—ANNUAL SALES—SCHOOL LANDS—POPULATION AND VALUATION—REVENUES AND EXPENSES—PRODUCTS OF THE STATE—VALUE—COMPARATIVE PRODUCTS—RAILROADS—LAND GRANTS—CORRUPTION—COUNTY LOANS—LAW OF FORECLOSURE—BANKING LAW—BANKS—SECURITY FOR CIRCULATION—HARD CURRENCY ADVISED, ETC.

The large tract of land now embraced in the State of Wisconsin has, within a very few years only, been redeemed from the grasp of the savage, but it has grown with great rapidity in numbers and wealth. The eastern boundary is Lake Michigan, and it is separated from Illinois on the south by the 40° 30′ line of latitude, which strikes the Mississippi River opposite Dubuque, Iowa. That river forms its western boundary to the line 49° north latitude. This area embraces 53,924 square miles, and forms a part of the great table land of North America, having a general elevation of 800 to 1,200 feet above the surface of the sea, yet nowhere does the highest point rise more than 2,000 feet above the general level. A hilly tract stretches from Lake Superior west to the head of Rock River, between the Fox and Mennomonee rivers, which both discharge into Green Bay. This ridge is called the Porcupine Hills. The region alternates in heavy pine timber and ponds, swamps, and extensive flats. By far the greater portion of the territory is prairie, with occasional strips of woodland on the rivers. The soil is of the highest fertility, and well watered. The chief rivers are the Wisconsin and the Fox. The former is in its length 550 miles; rising in the northern part of the State, it pursues a southerly course until it reaches latitude 43° 30′, in the middle of the State, when it turns abruptly to the west, forming the Great Bend, and running west-southwest, falls into the Mississippi River. It is navigable to the Great Bend, at seasons when the waters are up. From the Great Bend is a *Portage*, or carrying place, of one mile, to the Fox River. In wet seasons this may be passed in loaded canoes to connect the two rivers. The Fox River rises in the north, and runs parallel to the Wisconsin for some distance, when it turns at the portage abruptly to the north, receiving Wolf River in its course, and expanding into Lake

Winnebago. There are a few rapids, but no obstacle to down navigation until the waters flow into Green Bay. The position of the two rivers point them out as one of the great avenues of communication between the lakes and the Mississippi. This has been undertaken in the shape of steam navigation, aided by a grant of lands to the Fox and Wisconsin River Improvement Company. Although the Fox and the Wisconsin run within gun-shot of each other, the latter is several feet higher than the former. Hence the Portage Canal has been dug of sufficient size to float steamboats of considerable dimensions from one river to the other. By this means a sloop might come down the Wisconsin, and, reaching the Fox, pass into the lake, and thence to the Atlantic. The City of Portage, which stands on the Fox River, opposite Fort Winnebago, is not more than fifteen years old, and has had many difficulties to contend with, but it has grown into very considerable importance. It has graded streets, several beautiful blocks built with pale brick similar to that made at Wilwaukee, and several very pretty churches. At the recent session of the Wisconsin Legislature, the Committee on Internal Improvement report that the lands already selected by said company, and confirmed by the Commissioners of the Land-office, amount to 415,959.86 acres, according to the report of the Select Committee of the Assembly of 1856. In addition to the above quantity of land, the company claim, under an act of Congress passed August 3d, 1854, and a resolution adopted March 3d, 1855, a tract of land equal in quantity to the alternate sections along the Wisconsin River, from Portage to the Mississippi, which would add about 350,000 acres more to the improvement fund. These additional lands have been selected by the company between the Wisconsin and Mississippi rivers, near the latitude of Green Bay; but said selections have not been confirmed to the company by the General Government, and consequently, according to the act of 1856, before referred to, there is no positive appropriation for any improvement of the Wisconsin River.

The Rock River rises in the marshes about Lake Winnebago. It receives the Catfish, or outlet of four lakes, and the Pekatonika, a navigable stream from the lead region, and passes into Illinois, being navigable for steamboats to Kushkanong Lake. There are numerous other smaller streams. The lake shore affords many good harbors, of which the best is Milwaukee, which is the head of a semi-circular indenture of the shore, and is less liable to accumulation of sand than the other harbors of the lake. This territory was, in 1836, occupied by many warlike tribes of Indians, of which the Dahcotas, or confederates, were the chief, numbering 20,000, and the Winnebagos, numbering 4,500, with many others, making probably 35,000 Indians. These retreated rapidly before the advancing whites, when the stream of immigration once set in. In the winter of 1834 and 1835, a number of gentlemen in the county of Oswego, New York, conceived the plan of forming a settlement in the far West. An association was accordingly formed with the view of carrying out this object. In April, 1835, a delegation, designated for the purpose, left for the West on a tour of exploration. Wisconsin, east of Rock River, was at that time mostly an uninhabited wild; a few Indian traders comprised nearly all the white population, north of the Illinois line, between Lake Michigan and the mining country toward the Mississippi. The lands in the eastern part of Wisconsin had not yet been surveyed,

nor were they brought into market until the spring of 1839. The party before mentioned, having examined several points on the western shore of the lake, finally fixed upon Pike Creek, as a suitable location for the building of a town. Claims were accordingly made to several hundred acres of land, and the work of preparing temporary accommodation for the reception of families was immediately entered upon. During the summer of the same year a considerable number of families arrived from Oswego County and various other parts of the East, a few of which settled in the prospective village, but mostly on the prairie and adjoining country. The first house (except cabins or shanties) was built on the island between the north and south mouths of Pike Creek. It was constructed of logs, and subsequently converted into a tavern, and was, for a considerable time, the only house of public entertainment in the place. The first merchandise brought into the place for sale was also kept in the same building. The first frame building was erected in August, 1835, on the point near the south mouth of Pike Creek.

The Territory of Wisconsin was set off from Michigan, and organized under a distinct territorial government, by an act of Congress, in April, 1836. At that time, the Territory of Wisconsin included within its limits the present State of Iowa. In the same year Congress appropriated $25,000 for the building of a territorial capitol, and $5,000 for the purchase of a library, for the use of the Legislative Assembly. In 1838, Congress granted the further sum of $20,00 ', to be applied to the completion of the territorial capitol. Owing, however, to the wrong application of the funds, the appropriations of Congress failed to complete the capitol; it remained unfinished until the year 1844, when the county of Dane completed it, at an expense of about $2,000. The capitol was located at Madison by an act of the Legislative Assembly in 1836. Milwaukee, which has the best harbor, was settled in 1835.

The first session of the Legislature of Wisconsin was held at Belmont, in Iowa County, in 1836. At this session three banks were incorporated, besides which, sundry other corporations were created. The second session of the Legislature was held at Burlington, in the present State of Iowa; the third session was held at Madison in 1838, at which place all the subsequent sessions have been held. In June, 1838, Iowa was erected into a separate territory, comprising that portion of country west of the Mississippi River formerly included in the limits of Wisconsin.

The settlement then progressed rapidly, and in 1840 the number of inhabitants in the territory reached 30,945, and the valuation of the property was $8,077,200. The territory was admitted into the Union as a State in 1848, and at the next Federal census, taken in 1850, it numbered 305,191 souls. The progress of the land settlement, from that date to the present time, is expressed in the following table, showing the annual sales down to the close of the year 1857. Wisconsin received the usual grant of 500,000 acres from Congress on her admission into the Union as a State. Her grant for schools also comprised, as usual, every sixteenth section in each township, equal to one thirty-sixth of all the lands in the Territory, set apart by Congress for the support of common schools. Congress granted to Wisconsin 46,000 acres of land for the establishment of a university of learning.

ANNUAL SALES OF LAND IN THE TERRITORY AND STATE OF WISCONSIN.

1831	6,845	1842	126,954	1851	75,187
1834	14,354	1843	165,860	1852	25,287
1835	220,040	1844	258,412	1853	50,219
1836	639,278	1845	430,513	1854	1,780,508
1837	174,002	1846	687,933	1855	1,573,015
1838	84,795	1847	630,575	1856	668,405
1839	647,284	1848	252,125	1857	195,690
1840	129,149	1849	69,164		
1841	100,426	1850	58,390	Total sales	9,262,863

The disposition of the whole surface of the State has been as follows:

Area	acres	34,511,360
Sold as above	9,262,863	
Grants for schools	1,004,728	
" improvements	1,069,371	
" to individuals	5,706	
" for seats of government	6,400	
" military services	4,730,137	
" of salines to State	46,080	
Indian reserves	137,894	
Private claims	36,881	
Grants of swamp lands	2,350,000	
" to railroads	1,622,800	
		20,272,860
Balance, June 1st, 1857		14,238,500

The direct sales of lands by the Federal Government have been mostly to settlers, and have been accompanied by sales of lands by the State from the grants for schools, improvements, swamp lands, &c., also by those of military grants. The disposition of the school and swamp lands of the State has also been very satisfactory. The latter were granted to the States within which they lie by act of Congress of 1850, in order to enable the States to reclaim them. By this act the expenses of sale were first to be deducted, and 25 per cent of the balance of sales was to be applied to the expenses of drainage. The remaining 75 per cent forms part of the school fund. In the past year, 1857, there was sold of all these lands 992,374 acres, for $1,413,911, being an excess of $145,116 over the appraised values. Of the amount of sales, $355,908 was paid, and the remainder is on interest at 7 per cent. The whole amount of school and swamp lands granted is, it appears, 2,354,000 acres, and the sales already have created the school fund as follows:—

School land certificates	$1,737,988
Swamp land certificates	642,559
School fund loans	667,993
Total on interest at 7 per cent	$3,048,540

The net money received from land sales in 1857 was $291,932, and this was loaned to 796 different persons, some in each county of the State. No loan is over $500, and the average is under $400. From these sources the amount of money applicable to the support of schools this year is $246,000.

The quantity of land which has thus come under the plow had reached, in round numbers, 13,000,000 acres in farms, taxed in 1857, showing that a considerable proportion of all the lands disposed of has come under

cultivation. The progress in this respect may be gathered from the following table:—

Years.	Lands sold, acres.	Population.	Valuation.	Taxes.
1840.....	1,916,907	30,945	$8,077,200	.....
1850.....	4,910,486	305,191	42,056,595	$90,200
1855.....	8,898,768	552,100	72,912,818	259,420
1857.....	9,262,863	700,000	150,000,000	432,793

These are the quantities of Federal lands only sold to that year. The revenues of the State have been derived mostly from a tax on the total valuation, and this has yielded the following revenue annually since the formation of the State government. It will be observed that the expenses have increased in a ratio a little faster than the revenue, large as that has been, and has resulted in a small debt. The rapid increase of banking and railroads has afforded new subjects of taxation, which have largely added to the State revenues:—

Years.	Revenues.	Expenses.	Years.	Revenues.	Expenses.
1848.....	$13,499 56	$13,472 26	1853.....	$152,296 44	$160,407 14
1849.....	58,059 94	78,055 73	1854.....	191,299 40	222,154 12
1850.....	94,200 31	62,746 20	1855.....	259.420 84	273,057 72
1851.....	75,990 27	101,885 98	1856.....	388,863 84	395,355 87
1852.....	135,155 52	136,096 23	1857.....	432,793 77	442,756 10

The estimates of expenditure for the year 1858 are $525,824 25, including $7,000 interest on the State debt. The resources to meet this expenditure are as follows:—

State tax, levy of 1857.....	$300,000	Hawkers and peddlers.....	$300
Bank tax, 1858.....	60,000	Arrearages due.....	70,735
Railroad tax, 1858.....	15,000	On hand, Sept. 30, 1857	5,143
Plank-road tax, 1858.....	200		
Tax on suits, 1858.....	4,000	Total.....	$455,478

The valuation of property for 1857 is as follows, bearing a tax of two mills:—

	1850.	1857.
Number of acres.....	.....	12,917,756
Value of lands.....	$22,458,442	$47,748,402
" city and village lots.....		15,912,207
" personal property.....	4,257,083	6,256,411
Aggregate value assessed.....	$26,755,525	$69,918,020
" " equalized.....	42,056,595	150,000,000

The money in the treasury of Wisconsin was composed as follows at three periods:—

	Specie.	Wisconsin currency.	Total.
March 31.....	$72,231	$35,119	$108,350
June 30.....	31,159	92,392	123,551
September 30.....	46,539	137,520	184,059

The quantity of lands taxed, it appears, has exceeded, by more than three-and-a-half million acres, the quantity sold by the Federal Government, showing the quantity that has been derived from the State grants. The following table shows the manner in which these lands have come into cultivation, as expressed by the results. The leading products are by a State census for 1857, (which is incomplete,) as follows, as compared with the Federal census for 1850, and quantities for 1840:—

AGRICULTURAL PRODUCTS OF WISCONSIN.

	1857.			1850.		1840.
	Acres.	Quantity.	Value.	Quantity.	Value.	Quantity.
Barley .....bush.	19,504	408,885	$399,178	209,692	$157,269	11,184
Buckwheat.....	7,986	118,906	70,440	78,878	47,927	10,654
Clover.....lbs.	....	124,079	21,836	24,181	1,449	.....
Corn .....bush.	285,339	5,100,790	2,485,594	1,988,979	994,489	379,359
Flax.....lbs.	.....	6,808	540	68,393	5,471	.....
Hay .....tons	327,879	519,547	2,597,735	275,662	2,756,620	30,938
Oats .....bush.	193,609	6,312,304	2,707,800	3,414,672	1,195,135	406,514
Potatoes	22,858	2,318,694	2,112,470	1,402,956	561,270	419,608
Rye	15,050	220,580	136,669	81,253	56,877	1,965
Wheat..	521,393	8,717,756	8,101,090	4,286,131	3,857,518	212,116
Butter.... ..lbs.	.....	6,655,696	1,069,914	3,633,250	.....	.....
Cheese.....	.....	443,933	48,653	400,283	.....	.....
Cattle .....No.	.....	219,561	6,791,200	183,432	.....	30,269
Swine	.....	177,810	662,159	159,276	.....	51,380
Cattle slaughtered	.....	22,148	533,950			
Sheep "	.....	42,701	103,585	.....	920,178	.....
Swine "	.....	153,746	1,654,120			
Horses.....	.....	74,834	6,379,657	30,179	.....	5,735
Sheep.....	.....	312,215	608,847	124,896	.....	3,462
Wool.....lbs.	.....	939,806	266,630	253,963	.....	6,777
Sugar	.....	1,327,644	80,207	610,976	32,524	185,288
Whisky ....galls.	.....	301,512	74,950	.....	.....	.....
Boots and shoes..	.....	77,341	194,180	.....	.....	.....
Cottons ....yards	.. ...	19,405	1,898	.....	.....	.....
Wine .....galls.	.....	1,619	3,207	118	226	.....
Lead.....lbs.	.. ...	22,706,700	571,840	.....	.....	15,129,350

These figures for 1857, although very imperfect, and falling far short of the truth, indicate the great advance in products which the State has undergone, giving a large surplus to send out of the State. This surplus, as well as its availability, has greatly been enhanced by the construction and operation of railroads. Of these, there are in Wisconsin, a country peculiarly adapted to their construction, ten in operation, with a length of 718 miles open, having cost $19,295,842. A considerable portion of this large sum has been spent within the State for the reward of labor and the consumption of produce. It is very clear that such an expenditure, being equal to $50 per head of the average population of the last five years, in addition to the sums brought in by immigrants, has had a powerful effect upon the fortunes of so young a State, and has tended to push railroad enterprises to an extreme. The production of natural wealth has not been neglected, however. We compile the quantities and value of grain produced in the years 1850 and 1857, as in the above table, as follows:—

	1850.		1857.	
	Quantity.	Value.	Quantity.	Value.
Wheat .....bush.	4,286,131	$3,857,518	8,717,756	$8,101,090
Oats	3,414,672	1,195,135	6,312,304	2,707,800
Corn	1,988,979	994,489	5,100,790	2,485,594
Barley.....	209,692	157,269	408,885	399,178
Buckwheat.....	78,878	47,927	118,906	70,440
Rye.....	81,253	56,877	220,580	136,669
Total.....	10,559,605	$5,309,235	20,979,171	$13,900,771

This return for 1857, it will be remembered, is short—seventeen counties out of fifty-one having omitted their returns. The results are, however, sufficiently striking, since in thirty-four counties the quantity raised

in 1857 was double what the whole State raised in 1850. The value of these crops per annum has increased by a sum equal to half the whole expenditure upon the railroads, and these roads are now ready to pour into Southport, Racine, and Milwaukee the swelling crops of that fertile region, no longer consumed upon the spot by railroad builders. The exports of domestic produce from the country from the port of Milwaukee was, in 1857, $522,044. The construction of these railroads has been without State aid, except in so far as the grants of land by the Federal Government to the State were made over to the railroads. The following is a table of the roads in operation—the aggregate length opened is 830 miles, and about 1,162 miles are still to be completed on these roads:—

WISCONSIN RAILROADS IN OPERATION.

Railroads.	From.	To.	Length, miles.	Cost. Dollars.
Milwaukee and Mississippi	Milwaukee	Prairie du Chien.	192	
Janesville Branch	Milton	Janesville	18	5,153,076
Southern Line	Janesville	Monroe	33	
Chicago and Fond du Lac	Chicago	Janesville	91	
Middle Division	Watertown	La Crosse	20	3,065,000
Northern Division	La Crosse	Oshkosh	51	
Beloit and Madison	Beloit	Magnolia	14	260,000
La Crosse and Milwaukee	Milwaukee	New Lisbon	138	
Watertown Division	Columbus	Mil. Junction	50	4,482,615
Kenosha and Rockford	Kenosha	Fox River	20	800,000
Mineral Point	Warren	Mineral Point	32	1,000,000
Milwaukee and Horicon	Horicon	Berlin	42	1,101,000
Racine and Mississippi	Racine	Freeport, Ill.	101	2,945,015
Wisconsin Central	Geneva	State Line	10	350,000
Milwaukee and Superior	Milwaukee	Cedarburg	18	460,000
Total			830	19,716,706

Milwaukee is the great point of convergence for these roads, which have contributed to its growth, and which reciprocally has shown much enterprise in prosecuting them. The law of Congress, aiding in the construction of the roads, was passed in 1856, and the following is a synopsis:—

SYNOPSIS OF THE ACT OF CONGRESS, GRANTING PUBLIC LANDS TO THE STATE OF WISCONSIN TO AID IN THE CONSTRUCTION OF RAILROADS, PASSED JUNE 3, 1856.

SECTION 1 grants in aid of a railroad from Madison or Columbus, by way of Portage City, to the St. Croix River or Lake, between townships 25 and 31, thence to west end of Lake Superior and to Bayfield; also, from Fond du Lac, on Lake Winnebago, northerly to the State line, every alternate section of land, six sections in width, on each side of the railroads; no land to be more than fifteen miles from the roads, to be exclusively applied to construction, and disposed of only as the work progresses.

SEC. 2. Lands within six miles of the road not to be sold for less than double the government minimum price, and must be first offered at public sale.

SEC. 3. The land so granted may be disposed of by the Legislature for the purpose of the roads, and no other.

SEC. 4. The State may dispose of the lands only in the following manner:—A quantity not exceeding 120 sections on a continuous length of 20 miles of road may be sold, and when the Governor shall have certified that any 20 miles of the roads are completed, another like quantity of

land may be sold. If the roads are not completed in ten years, the remaining lands shall revert to the United States.

The distribution of these lands among the companies depended on the Legislature. Accordingly, that body in October, 1856, passed an act directing their appropriation to several companies. Among these was the La Crosse and Milwaukee Railroad Company. This transaction was charged with being corrupt, in consequence of bonds and stocks being given to members of the Legislature. A joint committee of investigation has reported these facts:—

1. Eighteen members of the Senate voted *for* the bill. Of these, *twelve* received in stock and bonds $165,000, in sums of $10,000 and $20,000 each.

2. Sixty-five members of the House voted *for* the bill; and of these, *fifty-two* received $360,000 in bonds and stock, in sums of from $5,000 to $20,000 each.

3. The members who voted *against* the bill, of course received nothing.

4. The following State officers received as follows, viz.:—

Governor	$50,000	Governor's Secretary	$5,000
Controller	10,000	Clerks of the House	15,000
Lieut-Governor	10,000		

The report then shows that $257,000 in bonds were also received by other persons, not members of the Legislature or public officers.

The summary of these payments is as follows:—

Paid members of the Senate	$165,000
" " " House	360,000
" State officers	90,000
" other persons	257,000
Aggregate bribes	$872,000

These discoveries have come out partly in consequence of the difficulties of the times, but they will not prevent the prosecution of the work. The direction has been changed, and a strong effort made to push the road through to the river, thus effecting a communication direct between Milwaukee and the "Father of Waters." To effect this, a new trust deed was executed, by which the land-grant bonds were limited to $4,000,000, secured by a mortgage upon the road from Portage City to La Crosse, and 307,000 acres of land which the company would be entitled to for building the road sixty-one miles to Tomah.

The constitution of the State of Wisconsin forbids the creation of a State debt to an amount greater than $100,000, which amount is outstanding, one-half bearing 6 per cent and one-half bearing 7 per cent interest. Notwithstanding this constitutional incapacity of the State to contract debts, however, the Legislature, by a series of acts, has conferred upon counties, towns, cities, and villages, the power of contracting debts, and this has been availed of to a considerable extent during the passion of subscribing to and building railroads, and twenty-four counties have issued bonds to the extent of $11,489,000 as follows:—

Sheboygan	$550,000	Rock	$160,000	Milwaukee	$500,000
Outagamie	365,000	Winnebago	500,000	Jefferson	1,260,000
Monroe	10,000	Racine	90,000	Waushara	460,000
Fond du Lac	2,310,000	Waukesha	410,000	Walworth	680,000
Calumet	238,000	Dodge	345,000	Sauk	175,000
Marathon	10,000	Dane	355,000	Waupaca	183,000
Marquette	1,125,000	Washington	100,000	Portage	200,000
Ozaukee	148,000	Columbia	415,000	Waukshara	400,000

There is authorized an additional amount of three-and-a-half millions, which, if availed of, will carry the figure to fifteen millions. The Governor strongly reprobates this evidently evasive system, and advises the immediate repeal of the laws authorizing towns, counties, and villages to loan their credit, and that the cities be restrained from any further loans of a similar character. The large debt is not less onerous because it is weighing upon the people locally. It must be paid sooner or later, and the indisposition to bear burdens which have been inflicted for speculation purposes may be inferred from the following law which was passed March 6, 1858:—

AN ACT RELATING TO FORECLOSURE OF MORTGAGES, AND THE SALE OF LAND UNDER SUCH FORECLOSURE.

The People of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:—

SECTION 1. That in all actions and proceedings at law hereafter commenced under that portion of chapter 84 of the Revised Statutes entitled "Of the powers and proceedings of Courts in Chancery on bills for the foreclosure or satisfaction of mortgages," the defendant or defendants in such action or proceedings shall have six months' time to answer the bill or complaint filed therein, after the service of summons or publication of notice as now required by law, and no default shall be entered in any such action until after the expiration of such time, any law to the contrary notwithstanding.

SEC. 2. Whenever in such action or proceeding judgment shall be entered, or an order made by the court for the sale of mortgaged premises, it shall be before the sale of said premises, upon six months' notice of such sale, as hereinafter provided, and in all cases where, before the passage of this act, judgment has been rendered in any of the courts of this State, or in the District Court of the United States for the district of Wisconsin, in actions to foreclose a mortgage or mortgages, or where an order or decree has been made by any such court for the sale of mortgaged premises, the mortgaged premises shall be sold only upon six months' notice given of the time and place of such sale, which notice shall be given in the manner provided in this act for giving notices of the sale of mortgaged premises.

SEC. 3. It shall be the duty of the sheriff, deputy-sheriff, or other officers appointed by the court to make sale of the premises, immediately after receiving a copy of the order for the sale of the mortgaged premises upon which such proceedings have been instituted, to publish, or cause to be published, notice of the sale of such premises, (unless otherwise ordered by the court,) describing the same therein, as now required by law, in some newspaper of general circulation in the county in which such premises are situated, at least once in each month for the period of six months before sale of the same; and if no newspaper be printed or published in said county, then the same shall be published in some newspaper in an adjoining county, for the time aforesaid, and no sale of mortgaged premises, under foreclosure by action, shall be valid, unless made in accordance with the provisions of this act.

SEC. 4. So much of any law, and such parts or all acts, as contravene the provisions of this act, are, for the purposes of this act, hereby repealed.

SEC. 5. This act shall be immediately published, and shall take effect and be in force from and after its passage and publication.

There is a general banking law in Wisconsin, passed April 19, 1852, which requires the deposit of State stocks as security, to cover the issues. The facilities which this law affords to roll up an apparent capital, by buying stock, and with the bills obtained from the Controller on the pledge of them, repeating the operation until the holder has a large amount of stock drawing interest, has been one cause of a rapid increase of circulation in the State, as follows:—

BANKS OF WISCONSIN.

	Capital.	Circulation.	Specie.
July, 1853	$530,000	$301,748	$174,986
January, 1854	600,000	485,121	182,482
July, 1854	1,250,000	786,216	240,909
January, 1855	1,400,000	740,764	334,383
July, 1855	1,536,000	930,320	358,127
January, 1856	1,870,000	1,060,165	531,713
January, 1857	2,955,000	1,702,570	542,938
July, 1857	4,205,000	2,231,829	550,488
January, 1858	5,940,000	3,215,488	576,548

The nature of the securities lodged for the circulation of the banks is as follows:—

Wisconsin 6s and 7s	$100,000	Virginia 6s	$232,000
Indiana 5s	128,000	Tennessee 6s	341,000
Michigan 6s	41,000	North Carolina 6s	125,000
Ohio 6s	26,000	Pennsylvania 5s	14,000
Louisiana 6s	126,000	Kentucky 5s and 6s	47,000
Georgia 6s and 7s	53,500	Missouri 6s	2,004,000
Illinois 6s	216,140	California 6s	116,000
Railroad 8s	77,000	Specie	119,901
Total			$3,862,041

The operation of this banking law has not been entirely satisfactory. The effort to get out circulation seems to involve a mixture of the State accounts with the banks that is by no means desirable, the more so that an existing law prohibits the receiving anything but gold and silver coin in payment for public dues. The great expansion of the banks, and the difficulties of the past year, have led to the utter disregard of that law, and Governor Randall advises a more strict enforcement of the sub-treasury principle.

The Western States seem doomed in their outset to suffer from the evils of too expanded credits, and Wisconsin has not been an exception. She is, however, possessed of a country, people, and railroads, with ports and business connections, which will carry her through difficulties that were found more formidable in the case of other States eighteen years since.

JOURNAL OF MERCANTILE LAW.

ADMIRALTY—DAMAGES TO CARGO—DEPOSITION—STOWAGE.

In the United States District Court, April 26. Before Judge Betts. Decisions in admiralty. Charles H. Jones, *et al.*, *vs.* the proceeds of the cargo of the ship Richmond.

The ship Richmond being wrecked in Behring's Straits while on a whaling voyage, her cargo of oil and bone was purchased by the masters of the ships Elizabeth Frith, Panama, and Junior, and brought to a port of safety. The owners of the Richmond libeled that portion of the cargo brought by the first two vessels, claiming that the sale was not a valid one. The suit was decided by the Supreme Court at Washington, (19 How. R., 150,) in favor of the libelants, decreeing that they recover the proceeds after deducting salvage.

The present action is against that portion of the cargo brought by the ship Junior.

POINTS RULED IN THE DECISION OF THE COURT.

1. The case made by the multifarious facts and witnesses produced on the hearing of this cause differs in no essential particulars from the one tried in the Supreme Court of the United States upon the same subject matter. (Owners of the ship Richmond *vs.* the owners of the ship Elizabeth Frith, 19 How. R., 150.)

2. The additional proofs given in this case are mostly cumulative, (2 Curtis, C. C. R., 20; 15 John. R., 413,) and also speculative and hypothetical in their character, not capable of determining positively the fact they were used to establish, *i. e.*, that the ship Junior would be able to catch and secure whales sufficient to produce the quantity of oil and bone produced from the ship Richmond in less time than was occupied by the Junior in removing the same quantity of each from the wreck of the Richmond. Besides, the Supreme Court had considered and determined, in its judgment, the value of that species of evidence.

3. The Court will hold the decision of the Supreme Court upon the effect of the proofs in that cause to be conclusive upon the weight and value of the like testimony in this.

4. Accordingly, the transaction between the two ships in Behring's Straits on board the wreck of the Richmond must, for the purposes of this trial, be regarded as salvage service by the ship and crew of the Junior, and not a purchase of the oil and bone by the master of the latter from the master of the Richmond, which vested the right of property in the owners of the Junior.

5. The owners of the wrecked ship are entitled to call the owners of the Junior to account in this Court for the value of such salved property, over and above satisfying out of the salvage services performed.

6. The Court of Admiralty has jurisdiction of the cause to that end, and the jurisdiction is not dependent upon the fact that the salved property was arrested or brought within the territorial authority of this Court.

7. An action *in rem* may be instituted and prosecuted to judgment in this Court, without the arrest of the property proceeded against, or its presence within the territorial jurisdiction of this Court. This necessarily is so when the process issues against rights and credits, and may be the case also in respect to proceeds of ships and other property. (Munroe *vs.* the Almedia, 10 Whit., 473.) A citation or monition to the party holding the property is adequate service to authorize the Court, by decree against the party personally, to compel him to fulfill the decree, (1 Blatch. and How. Rep., 34; *ibid*, 525, 535; 1 Paine Ro., 625; 4 Cranch, 22, 24; 1 Gel., 75; 10 White., 473; 9 Peters, 300.)

The practice of the English Admiralty is to the same effect (1 Hagg., 335; 1 Abbott Ad. R., 4, 5,) and the personal appearance of the defendants, by stipulation and answer, is equivalent to an attachment of the property itself.

8. The process prayed for in the libel was one in due form of law, according to the course of Courts of Admiralty and of this Court, against the proceeds of the cargo, materials, and furniture of the ship Richmond, and that the defendants (by name) and each of them, and all persons having any right thereto, &c., "may be cited to appear and answer the matters alleged and proposed," &c.

9. The usual process *in rem* against the effects named, was insued in connection with a citation or monition to the defendants, personally to appear and answer the libel.

10. This process was returned to the marshal, personally served on one of the defendants, and all of them appeard in open court by their proctors, and made their appearance, "*apud acta* to the cause," and subsequently filed their answer, contesting the merits of the case, without taking exception by pleading to the form or sufficiency of the process, or its mode of service.

11. This is a recognition of the jurisdiction of the Court over the case, and of the regularity of the proceedings in instituting the suit. A protest, demurrer, or plea to the jurisdiction, or exception to the process, must be taken previous to a full answer to the merits, (2 Brown, Civ. and Ad., 414; Dunlap's Pr., 180, 185; Conklin's Pr., ch. 8; Betts' Pr., 48; cases as cited,) unless the want of jurisdiction is patent on the libel.

12. Nor can the defendants legitimately avail themselves of limitation of time or staleness of the demand, without interposing a defensive allegation to the libel, either being applied as causes of bar to the action. (2 Brown, Civ. and Ad., 406, 414.)

13. The delay of this prosecution is reasonably accounted for by the pending of the case of Post *vs.* Jones, (19 How., 161.) in the Supreme Court, which related to this wreck and salvage, and involved substantially the merits of this case, and of which the defendants were cognizant; and also by the correspondence between the parties, and is sufficient to protect the libelants from the exception of staleness to their demand.

14. The testimony of the witnesses, Cheny and Carr, is admissible, *ex necessitate*, notwithstanding their apparent interest in the suit, they being salvors in the transaction, (2 Hagg., 151; *ib.*, 145; 1 Summ., 400; *ib.*, 329;) besides, their interest is mostly, if not entirely, cumulative.

15. The decision in the previous case, (19 How., 161,) having settled the character of this transaction to be one of salvage, I regard the award of compensation made in that case to the salvors a proper one to be adopted in this, to be reserved by the defendants out of proceeds which have gone into the hands of the defendants, and the same rule also measures one moiety of these proceeds as the amount they are bound to account for to the libelants.

16. The decree will be so framed as to secure the libelants a moiety of these proceeds, cargo, and materials obtained by the respondents from the Junior at New Bedford, after the deduction of freight and charges thereon from the Sandwich Islands to New Bedford. The salved goods lost by perils of the sea on the voyage from the Sandwich Islands to New Bedford are to be brought into the account.

Decree accordingly with cost, with an order of reference to ascertain and report the amount payable, if the same is not agreed between the parties.

For libelants, Mr. Lord and Mr. Moore. For claimants, Mr. Benedict and Mr. Hoxie.

BOTTOMRY BOND—LACHES—RIGHT OF SHERIFF TO INTERVENE.

In the United States District Court, in Admiralty, April, 1858. Before Judge Betts. Joseph Eneas *vs.* the schooner Charlotte Minerva.

This was a libel filed to recover the amount of a bottomry bond, executed on June 27, 1856, by the master and owner of the British schooner *Charlotte Minerva*, to secure a loan of $4,000 made to him by the libelant, by which that sum was to remain as a lien and bottomry upon the vessel, at the premium of five per cent, and lawful interest for the voyage. The condition of the bond was, that the loan and the premium should be paid at or before the expiration of 350 days after the arrival of the vessel at Harbor Island, Bahamas. She arrived there on July 12, 1856, after which she made two other voyages to New York, and one to Philadelphia. The last one to New York was about the middle of August, 1857. On the 8th of September she was seized by the sheriff of New York, under an attachment against her owner. On Sept. 16 the libel in this case was filed, and the marshal seized the vessel under the process, without opposition on the part of the sheriff, and the vessel was sold by order of this court, its proceeds being less than the amount of the bottomry debt. Judgment was obtained in the action in the State Court, and execution issued. The sheriff intervened in this action, claiming that the proceeds of the vessel are bound by the judgment and execution of the State Court, and should be applied first to satisfy it.

Held by the Court—That the sheriff is a competent party to intervene in this action, upon his official interest and possession in respect to the vessel, and claim the proceeds in the registry of the court. (The Panama, Olcott's Rep.. 343.)

That the bonds, though anomalous and singular in its provisions, yet in substance constitutes a maritime hypothecation of the vessel for a particular voyage and a specific period beyond its termination, and the money so loaned has been put in risk under the contract.

That this lien is paramount to and supersedes the attachment of the sheriff.

That the remedy in this court might be lost for want of definiteness and certainty in the bond, or by laches of the bottomry creditor.

That a bottomry loan is equally valid when made on the lapse of a definite period of time, as if on the expiration of a specific voyage.

That the loan need not be for the necessities of the vessel, or cargo, or voyage. When the bond is made by the owner, he may employ the money at his discretion, and pledge the ship for its security, the lender retaining his lien so long as the ship bears the risk.

That there was no laches in the delay of a few weeks after the libelant's right of action was matured, which can impair his remedy. Nor does the prior attachment of a junior lien-creditor supersede his right.

Decree for libelant for $4,000, with the marine interest thereon to Aug. 15 and interest at 7 per cent from that date, and costs.

For libelant, Messrs. Benedict, Burr, and Benedict. For the sheriff, Messrs. Larocque and Barlow.

LIEN—SUPPLIES—MEANING OF THE WORD PORT—STATE LAW.

In the United States District Court, in Admiralty, April, 1858. Before Judge Betts. John D. Concklin *vs.* the steamboat Sylvan Shore.

This was a libel filed to recover the price of lumber furnished by the libelant to F. J. A. & L. H. Boole in July, 1856, and applied by them in building the steamboat at Mott Haven, in Westchester County. The steamboat was built under a contract between L. H. Boole and the claimants, the New York and Harlem Navigation Company, by which the hull and joiner work were to be completed before Aug. 17, and to be delivered at a wharf in New York city. The hull of the boat was taken to New York Aug. 22, and after receiving her machinery and making a trial trip or two she returned to Mott Haven, Oct. 25, and on Nov. 10 began her regular trips between Harlem and New York. On Nov. 5 the builder was paid the contract price in full. The lumber was not sold to or for the vessel, and the charges on the libelant's books were to the firm alone, not naming the boat. This suit was commenced Nov. 25, 1856. No specification of lien was filed in the County Clerk's office of Westchester or New York.

Held by the Court—That a lien was indisputably created in favor of the libelant by the purchase made by the builder, if the materials were obtained on the credit of the vessel, whether he procured them in the character of owner or builder, subject to the condition expressed in the statue of filing a specification within ten days after leaving the port.

That the term "port" used in this class of enactments has never been understood or employed in a technical or restricted sense, as limited to ports of entry, free ports, or those bearing any special qualification. These municipal lien laws especially are adapted to occasions which would naturally occur in places along the shores of our inland waters, wherever a vessel may need repairs or supplies, and the word "port" would naturally be used in its most familiar and popular sense.

That the second section of the lien law of the State fixes the county within which the lien is created as the place where legal proof of it shall be recorded, and thus indicates unmistakably that when the vessel leaves such county, she departs from the port where the privilege accrued to her, and it is the same where her removal in point of distance is merely nominal, in going, for instance, into a port in the county of New York, as to one in Richmond or Suffolk County.

That the libelant, not having filed his specification within ten days after the departure of the vessel from the port, his right of action was barred in this case.

Libel dismissed with costs.

For libelant, Messrs. Beebe, Dean, and Donohue; for claimant, Mr. Benedict and Mr. McGowan.

JURISDICTION—FREIGHT—CARTAGE OF COAL.

In the United States District Court. Before Judge Betts. John Gaughran *vs.* 151 tons of coal.

This was a libel to recover freight upon the coal brought by the libelant from Schuylkill Haven to this port, for $1 85 per ton. The libelant alleges that he brought the coal to this port and carted it to the claimant's place of business, for which he also claims compensation. The claimant sets up drafts paid by him on account of the freight to the amount of $169, denies any indebtedness, and alleges that, by delivery, the libelant has lost his lien.

Held by the Court—That the route necessarily including navigable waters lying between two States and waters, subject to the ebb and flow of tide, the *locus* is now within the jurisdiction of the court. Such actions have been sustained in this court by its familiar practice for years. That the libelant did not lose his lien by delivering the coal to the claimant in his coal yard on land. But as the bill of lading does not undertake to deliver the cargo in bulk at any specific place, it will not be implied that the owner was bound to transport it landwise across the city, or to any place of deposit from the ship, and there may be, at least, doubt whether that service, if expressly contracted for, would come within the protection of the lien, or can in any form become a ground for a maritime action; and the court will not allow the libelant to recover his charges for carting the coal from the vessel to the yard. Decree for libelant. with a reference to ascertain and report the amount due after deducting previous payments. But the price of cartage may be charged against advances made to the libelant, if clear proof is given by him that the cartage was done or paid for at the instance of the defendants.

SALVAGE—DERELICT.

In the United States District Court. Before Judge Betts. Peter Curtis, *et al.*, *vs.* a quantity of wearing apparel.

This was a libel for salvage on a quantity of wearing apparel picked up derelict at sea in boxes by the libelants, the master and crew of the schooner J. T. Williams, in September, 1857. No one appeared for the goods, and they were sold for $250. The schooner and cargo were worth about $12,000. The salvage was made in a heavy sea, and under considerable risk and exertions on the part of the libelants and the schooner.

Held by the Court—That no circumstances are proved which call for an allowance of salvage exceeding the ordinary one in such cases of derelict. Decree, therefore, for the libelants for one-half the gross proceeds, and that the costs and charges be paid out of the other half—and that the salvage awarded be divided into nine parts, two shares each to the owner and master of the schooner, one-and-a-half to each of the mates, and the other two shares to be divided equally between the cook and the four seamen.

SUPPLIES—LIEN.

In the United States District Court. Before Judge Betts. Thomas Egleston, *et al.*, *vs.* the bark Agnes.

This was a libel brought to recover $948 87 for the value of certain iron alleged by the libelants to have been furnished to the bark. The evidence shows that it was purchased by one Erskine, who was building the bark now owned by the claimant.

Held by the Court—That the iron procured from the libelants by Erskine, and used in building the bark, became a lien upon her, whether Erskine was owner of the bark, or builder, or agent of the claimant—the vessel not having left the port since she was built before the suit. The libelants are entitled to recover for whatever iron he shall prove to have been used in constructing the vessel, with costs.

COMMERCIAL CHRONICLE AND REVIEW.

STATE OF BUSINESS—ACCUMULATION OF BUSINESS—WANTS OF GOVERNMENT—ESTIMATES OF EXPENDITURE—INCREASE OF DEFICIT—NEW LOANS—NEGOTIATION OF TREASURY NOTES—NEW YORK STATE LOANS—OHIO LOANS—MICHIGAN LOANS—CITY OF DETROIT—RAILROAD WANTS—EXCHANGES, RATES OF—SPECIE MOVEMENT—RECEIPTS OF GOLD—EXPORTS FROM NEW YORK—ASSAY-OFFICE—MINT RETURNS—COIN IN BANKS—COMPARATIVE LOANS—RATES OF MONEY—CLEARINGS IN NEW YORK FOR THE YEAR, PROGRESS OF—DECLINE OF BUSINESS—RATIO OF TO LOANS—BANK TABLES—RESUMPTION AT THE SOUTH—KENTUCKY BANK LAW—TENNESSEE LAW—SMALL NOTES—STATE OF CIRCULATION—LOW PRICES REQUIRE LESS MONEY—STATE OF CROPS AND GOODS—IMPORTS FOR THE SEASON—VALUES PUT ON THE MARKET—GOODS IN BOND—SHORT CREDITS—BACKWARD BUSINESS—SMALL PURCHASERS—HIGHER PRICES ABROAD—MANUFACTURES MORE ACTIVE—CONSUMPTION OF COTTON—LOWER PRICES OF MATERIALS.

THERE has been no improvement during the month, at home or abroad, in the general tone of business, or anything which leads to a renewed demand for money. The wants of the Federal Government, resulting from the diminished customs revenues, have been chiefly felt in the demand upon the banks for specie in exchange for treasury notes. The large accumulation of specie in the banks, amounting to $64.000,000, in five cities, May 1st, made the treasury notes a very welcome investment in the absence of the ordinary supplies of business paper. On the other hand, the specie supplied to the government on these notes, only passes through the treasury into general circulation, thus operating in favor of general business. The wants of the government have, however, increased, because business has not revived to relieve it, and because wars and rumors of wars have increased the expenses. In December last, the Secretary estimated the Federal receipts and expenditures, as follows:—(Page 81, vol. xxxviii., No. 1, *Merchants' Magazine.*)

Balance on hand July 1st, 1857	$17,510,114
Receipts to July 1st, 1858	57,879,820
Total	$75,389,934
Expenditures	74,963,058
Estimated balance on hand July 1st, 1858	$426,876

This estimate involved a loan of $5,000,000, which is the amount necessary to keep on hand to make the treasury work well. The government, however, December 23d, 1857, authorized $20,000,000 of treasury notes, which have been negotiated. The Secretary, under date of May 19th, states that, owing to the continued stagnation of business, the receipts have fallen $10,000,000 below the estimates, and Congress, for various causes, has enhanced the expenses $10,000,000; whence, the $20,000,000 authorized are absorbed, and the fiscal year, 1859, commences with nothing in the treasury, and with estimates of $37,000,000 to be paid in the first two quarters. To meet this, the Secretary estimates the receipts of the treasury at $25,000,000, and asks for a loan of $15,000,000 in a six per cent stock, ten years to run. The act finally authorized a loan of $20,000.000, interest not to exceed six per cent, fifteen years to run. The expenses will be cut down, and inasmuch as that the Mormon war has come to an end, a good deal of the expenses anticipated in that quarter, will not take place. The anxiety in relation to the English visitation of American vessels

has also subsided, but has, in some degree, enhanced the expenses. Trade will probably not revive so as to aid the Federal revenues, in any great degree, before the third quarter of the year. It is pretty certain, therefore, that the government will be a borrower for some 15 a 20 millions, an amount which cannot now effect the market much. Besides the Federal Government, New York offers for three distinct loans, proposals for which were received until the 24th June, as follows :—$100,000, five per cent, redeemable July 1st, 1875 ; $200,000, five per cent, redeemable in 1860 ; $1,500,000, five per cent, redeemable in 1868 ; total $1,800,000, of which $1,500,000 are for the redemption of a part of the canal debt, become due on the 1st of July, instant, and the remainder is an addition to the present indebtedness of the State.

This was not, therefore, an increase of debt. The State of Ohio, for a similar purpose, offered, through the commissioners of the sinking fund, a temporary loan of $500,000 of Ohio six per cent stock, due in 1860 and 1861, and was—

Norwich Savings Institution.....	$290,000, 1861	100.10 a 101.25
Thompson Brothers.....	150,000, 1861	100.51
E. R. Bayle.....	150,000, 1861	100.50
Total.....	$500,000	

The average premium was 6.10 per cent. The entire amount of bids was $1,260,000. There were two small bids at par, and two bids each for the whole amount.

The law which authorizes this loan authorizes also a tax sufficient to pay it off at maturity. There are $200,000 yet to be offered under the same law.

For a loan of $216,000, authorized by the extra session of the Legislature of Michigan, was awarded to E. H. Hazelton & Co., of Detroit, at 1¼ a 1 1-16. The aggregate amount of the bids reached $833,000. The premiums on the account of the loan amount to something over $2,000.

The city of Detroit offers for a water loan of $150,000, in a seven per cent stock, redeemable in 1893, interest payable in New York. The Milwaukee and Chicago Railroad asked for a loan of $400,000, in eight per cent bonds, but did not succeed in obtaining it.

There is little fresh borrowing for company purposes, while the continuous depression of business, accompanied by large stocks of produce, with the prospect of large crops, and consequently of a downward tendency in prices, prevents the return of much disposition to invest in goods. Our customary tables of monthly business, annexed to this report, show the ratio of imports as compared with last year, giving a heavy decrease in the amounts to be paid for, while the exports do not show any material falling off. The effect upon exchange has been felt, as a matter of course, and the rates during the month have ruled as follows by each packet :—

RATES OF FOREIGN BILLS IN NEW YORK.

	May 25.	June 7.	June 14.
London.....	109¼ a 109⅞	109 a 109¼	108¾ a 109¼
Paris.....	5.17½ a 5.12½	5.16¼ a 5.12½	5.16¼ a 5.12½
Bale and Zurich.....	5.13¾ a 5.12½	5.13¾ a 5.12½	5.13¾ a 5.12½
Antwerp.....	5.13¾ a 5.12½	5.13¾ a 5.12½	5.15 a 5.12½
Amsterdam.....	41⅞ a 42	41⅝ a 41¾	41½ a 41⅞
Frankfort.....	41⅝ a 41⅞	41½ a 41⅝	41½ a 41⅝
Bremen.....	79¾ a 79⅞	79½ a 79⅝	79 a 79⅝
Pruss. thalers, on Berlin, Liepzig, Cologne.....	73 a 73½	73 a 73½	73 a 73½
Hamburg.....	36⅞ a 37	36½ a 36¾	36½ a 36¾

These rates are under the usual specie shipping points, and as money is very cheap in London and Europe, there is less disposition to send specie, although some continues to go. The rate in London is 2½ per cent, with prospects of a further reduction.

The comparative shipments from the port of New York have been as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,266
23.....	.....	781,295	.....	1,244,368	3,073,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,480	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,184	225,274	2,964,000	35,925,076
20.....	1,004,100	306,351	11,000	116,114	6,853,852	37,681,656
27.....	....	38,734	1,403,949	83,120	6,141,594	37,071,066
April 3.....	1,457,128	742,233	.....	115,790	5,548,069	37,078,069
10.....	375,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	203,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,390	1,550,000	136,873	3,145,400	38,209,613
8.....	.....	671,101	.....	106,110	2,874,200	38,327,346
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,394,892	1,446,175	16,616	4,803,609	38,170,900
17.....	208,000	2,045,389	.....	50,000	7,773,108	38,011,251
	17,758,165	20,001,755	16,698,982	12,027,645	.....	.....

The California packet of the 20th of May brought $1,446,175 in gold. The corresponding packet of last year was the richest of the season, delivering $1,920,376 at New York. Since the 1st of January, however, the receipts are in advance of 1857, the winter packets delivering above 30 per cent more than the previous season. The total shipments of gold from San Francisco to the 15th of May, as registered there, amount to $17,134,540, against $16,850,150 to same date last year. The mining news from California differs very little from the previous satisfactory reports. The excitement about the new discoveries on Frazer's River, in the British Hudson's Bay Company's possessions, was on the increase, and a large mining force will soon be diverted to that quarter—about 2,000 were already on the way. Some of the gold had been received back, and was like the early California metal.

The exports of specie have much diminished during the month, in consequence of the circumstances pointed out. The nature and destination of the shipments have been as follows :—

SHIPMENTS OF SPECIE FROM THE PORT OF NEW YORK, MAY 8TH TO JUNE 17TH.

	American coin.	Bars.	American silver.	Sovereigns.	Doubloons.	French gold.	Spanish silver.	Total.
St. Thomas..	$8,404	.....	.....	.....	3,953	....	...	12,357
Liverpool....	108,000	$522,025	12,416	218,050	....	....	...	860,551
Havre.....	57,000	376,792	.....	.....	....	9,675	...	443,467
Hamburg....	2,200	177,469	.....	.....	....	15,460	...	195,129

	American coin.	Bars.	American silver.	Sov'reigns.	Doubloons.	French gold.	Spanish silver.	Total.
Arroga.....	.....	.....	4,080	.....	7,925	.....	...	12,005
St. Domingo.	.....	.....	1,000	... ...	....	.....	...	1,000
Ponce.....	.....	.....	3,000	.....	22,265	.....	...	22,265
Havana.....	.....	.....	....	.....	39,800	.....	...	39,800
Cuidad Boliv'r	20,000	.....	....	.....	....	.....	...	20,000
Hong Kong..	.....	.....	....	.....	....	.....	650	650
Jacmel.....	533	.....	....	.....	....	.....	...	533
Buenos Ayres	1,575	.....	....	.....	....	.....	...	1,575
Laguayra ...	15,000	.....	....	.....	....	.....	...	15,000
Maracaibo....	5,000	.....	....	.....	....	.....	...	5,000
St. Johns, P.R.	.....	10,000	....	.....	15,850	.....	...	25,850
Total.....	217,712	1,086,846	20,496	218,050	89,793	25,135	650	1,658,586

The amount shipped from Boston for the month of May was $401,909, against $1,589,926 same month last year. The export from the two cities for the month of May, were $2,161,891, against $7,154,824 same month last year.

The operations of the treasury and mint have been as follows :—

STATEMENT OF BUSINESS AT THE UNITED STATES ASSAY-OFFICE AT NEW YORK FOR THE MONTH ENDING MAY 31, 1858.

	Gold.	Silver.	Total.
Foreign coins.....	$5,000	$89,000	$94,000
United States bullion, (inc. Cal. Br. mint bars $25,000.)	1,625,000	21,000	1,646,000
Foreign bullion.....	20,000	65,000	85,000
	1,650,000	175,000	1,825,000

Total deposits payable in bars.....	$1,565,000 00	
Total deposits payable in coins.....	260,000 00	
		$1,825,000 00
Gold bars stamped.....		1,773,355 84
Transmitted to the United States Mint, Philadelphia, for coinage.....		320,012 37

The following is an official statement of the deposits and coinage at the United States Mint in Philadelphia during the month of May, 1858, showing a coinage for the month of only a little over half a million of dollars, though the total number of pieces coined is nearly four million. Over one-half the total value of the coinage was in $20 gold pieces.

BULLION DEPOSITED.—GOLD.

From California.....	$312,857 50
Other sources.....	30,542 50
Total.....	$343,400 00

SILVER.

Including silver purchases.....	179,590 00
Spanish and Mexican fractions of a dollar received for exchange for new cents.....	27,000 00
Total	$206,590 00
Copper coin, O. S., exchanged for new cents.....	3,970 00
Total deposits.....	$553,960 00

COINAGE EXECUTED.

GOLD.

Denomination.	No. Pieces.	Value.
Double eagles....	16,909	$338,180 00
Gold dollars.....	12,291	12,291 00
	29,200	$350,471 00

SILVER.

Half dollars.....	96,000	$48,000 00
Quarter dollars..	636,000	159,000 00
Half dimes.....	660,000	33,000 00
Three-cent pieces	224,000	6,720 00
	1,616,000	$246,720 00

COPPER.

Denomination.	No. Pieces.	Value.
Cents	2,200,000	$22,000 00

RECAPITULATION.

Gold coinage ..	29,200	$350,471 00
Silver.....	1,616,000	246,720 00
Copper.....	2,200,000	22,000 00
Total.....	3,845,200	$619,191 00

STATEMENT OF THE DEPOSITS AND COINAGE AT THE BRANCH OF THE MINT OF THE UNITED STATES, AT NEW ORLEANS, DURING MAY, 1858.

GOLD DEPOSITS.

California gold	$56,459 81	
Gold from other sources.....	1,765 82	
		58,225 63

SILVER DEPOSITS.

Silver parted from California gold.....	$414 02	
Silver from other sources.....	468,245 27	
		468,659 29
Total deposits.....		$526,884 92

GOLD COINAGE.

9,500 eagles.....	$95,000 00

SILVER COINAGE.

616,000 half dollars.....	$308,000 00	
236,000 quarter dollars.....	59,000 00	
360,000 half dimes.....	18,000 00	
		385,000 00
Total coinage.....		$480,000 00

The quantity of "money," that is, American coin, shipped has been small, and a good portion of that has been for the West India trade. The bulk of the shipments are in "bars," which are ¼ a ½ discount, forming the best remittance, and sovereigns continue to return. These were a portion of the amounts imported during the panic, and partly supplied by immigrants. The accumulation of specie in the foreign banks, as compared with that in the banks of four leading American cities, is as follows, for the day on which the Bank of France make its monthly returns :—

SPECIE IN BANKS.

	October.	February 10.	March 11.	April 8.	May 13.
London.....	$35,850,110	$82,870,101	$88,532,091	$88,627,166	$86,940,942
Paris.....	35,585,618	53,035,138	63,323,865	71,780,888	82,993,386
New York	7,843,280	30,226,275	32,961,076	32,036,436	34,730,728
New Orleans	3,230,370	11,187,398	10,978,759	10,808,605	10,615,535
Boston.....	2,563,112	7,079,600	7,589,968	8,505,312	9,210,111
Philadelphia.....	2,071,484	4,823,989	5,448,514	6,183,289	7,019,204
Total.....	86,743,890	189,292,491	208,834,273	218,003,696	231,509,906

The whole accumulation since October has been $144,800,000, or three years' produce of California.

The bank in London holds now more than all the banks held in October. The increase in gold does not, however, enable the banks to increase their discount lines, since the business doing is not such as to create much new paper, and the maturity of old paper suffices to keep down "the line," in spite of investments in treasury notes. The London and Paris banks ran their discounts up to the highest points during the panic. If we compare their lines of commercial discounts in May with the highest point given in the fall, the results are as follows :—

	May, 1857.	November, 1857.	May, 1858.
London	$91,160,204	$151,758,910	$71,380,111
Paris	99,343,966	113,520,890	71,214,870
New York	114,620,042	94,968,180	114,119,288

The movement aptly illustrates the bank action. There the banks lend all that is asked for, charging a higher rate of interest, until it reached even 10 per cent. Here the banks refused to lend at all, and called in a large amount. At this time, when there is no business doing, the foreign bank discounts stand very low, while the New York banks, by lending on stocks, treasury notes, etc., contrive to keep up the discount line. The clearings of the New York banks illustrate more accurately the decline in business.

The manager of the New York Clearing-house, G. D. Lyman, Esq., has furnished some valuable returns in relation to the operation of the clearing-house during the past year. The aggregate result for the year ending June, is as follows :—

Exchanges for the year ending June 1st, 1857	$8,061,584,501 62
Exchanges " " " " 1858	5,638,677,789 02
Decrease	$2,422,906,712 60

This is a decline of one-third in the movement, and the decline commenced with the month of September last year, when the bank contraction commenced simultaneously with the withdrawal of the country balances. It is probable that the sudden withdrawal of the latter, under the influence of the panic which was created here, and which alarmed out-of-town holders of balances here, was a principal cause of the catastrophy which followed.

The clearing-house commenced operations October, 1853, and its operations for four years were as follows :—

Year to October 1st, 1854	$5,752,445,799
Year to October 1st, 1855	5,362,912,098
Year to October 6th, 1856	6,895,032,800
Year to October 6th, 1857	8,333,226,718

In the year 1855 there was some reaction in the business done. The exports of produce were less than they had been, and general business was less active. The panic commenced in the October month of the year 1857, embraced in the above aggregates, and the monthly operations since, as compared with the corresponding months of the previous year, were as follows :—

	1856–7.	1857–8.
June	$567,700,805 47	$719,883,196 87
July	596,557,439 10	728,699,257 93
August	547,674,598 61	668,752,161 26
Three months	$1,713,932,843 18	$2,117,325,716 06

	1856–7.	1857–8.
September	$615,602,471 84	$431,651,327 50
October	701,925,536 17	308,579,407 36
November	695,001,707 25	321,486,500 50
December	707,495,670 49	337,221,226 67
January	677,458,783 10	342,773,995 66
February	665,578,847 22	356,467,068 83
March	750,850,291 16	460,388,898 18
April	765,268,295 27	441,207,527 44
May	770,535,258 94	471,376,133 02
Total	$6,847,652,158 44	$3,521,352,062 22

Thus there was an upward movement of 25 per cent in the summer quarter of last year, which was marked by a large accumulation of "balances" due banks rather than by any increase of the regular commercial deposits of the city. The month of October, in which the banks curtailed their loans $10,000,000, and the net deposits fell $14,000,000, the clearings were only 40 per cent of what they were in the corresponding period of the previous year. The banks lost their specie by direct drafts upon them for the money, and not in favor of other banks; hence the checks so made did not come into the clearing-house, the operations of which embrace only the checks and drafts which each bank holds against others.

The subsequent movement of the clearing-house was the reverse of what it was the previous year. The movement then continued to diminish up to March, when it revived with the spring payments and the increased activity in the stock market. This year there has been a regular monthly increase. The total movement for the nine months, ending with May, shows a decrease of one-half in the amount of business. The amount is far less than at any period since the first operation of the clearing-house, although the bank loans range higher than ever before, as follows, for June 1st, in each year:—

	Loans.	Specie.	Net deposits.	Clearings.
June, 1853	$95,520,656	$12,021,851	$58,087,916	.....
1854	91,916,710	10,281,969	69,598,724	$19,660,086
1855	91,197,653	15,397,674	59,034,612	17,508,624
1856	103,474,921	16,166,180	78,361,791	22,247,452
1857	115,338,596	13,134,715	69,233,090	27,361,301
1858	116,424,597	32,790,332	83,506,885	17,982,650

In the returns for 1853 the bank balances are not included in the deposits. They were embraced afterwards in a manner to disguise the amount, which is uniformly so disastrous to the commercial interests of the city. It will be observed that the clearings bear but little relation to the deposits or loans; as thus, the clearings this year for the first week in June were nearly the same as for the corresponding week in 1855, yet the loans and deposits are nearly 30 per cent more than at that period. The loans and deposits this year are larger than last year, yet the clearings are $10,000,000 less daily per week. Hence it is evident that it is not the mere amount of bank loans which expresses the business done, since on the same amount last year the clearings indicate a vastly greater activity of business.

The tables annexed to this article indicate that the same features which are apparent in the New York returns are common to all the banks of other cities, viz., that their means accumulate while they experience difficulty in getting the proper investments.

The process of resumption on the part of the Southern banks has induced some flow of specie in that direction. All the suspended banks of Charleston, S. C., resumed June 8th, with very limited circulation; the amount outstanding for the State being $6,569,972. The Kentucky bank act, forbidding the circulation of bank notes from other States under $5, took effect on the 1st of June. The Tennessee bank act forbids the issue of notes under $5, after January, 1859, and after January, 1860, none under $10 to be emitted, and none of the notes of banks in other States to be circulated. These provisions tend to create a larger demand for coin when business shall so revive as to require more circulation.

This, however, is not now the case. Prices continue very low, and there being little chance of a speedy revival of demand, either through foreign markets or at home, there is no disposition to invest in produce, and but little currency is needed. The customary tables of the monthly business at this port, annexed to this article, show but a languishing export trade. The exports of domestic produce for May were barely two-thirds those of the corresponding month last year. There seems, in fact, to be a general surplus above the wants of commerce. The country is full of produce, and every means of transportation is in good order, railroads, canals, lakes, and rivers—all afford very low terms of freight; but the prices abroad are low also, and there is no stimulus to the markets. The imports for the month, and for the five months since January, have been small, but it would appear that the general business has been better than the imports alone indicate, since the goods sold here exceeded the importations. It appears that the value entered for consumption and withdrawn from warehouse since January 1st, is $49,219,781 put upon the market, exceeding by $10,000,000 the quantity imported. Thus the business done has been much larger than the imports. The warehousing operations have been as follows:—

Total value of goods in bond May 1st, 1858		$13,838,068
Entered warehouse from foreign ports in May		2,626,978
Received in bond from other domestic ports		31,594
Total		$16,496,640
Withdrawn for consumption here	$2,690,838	
Re-shipped to foreign ports	272,053	
Transported to other domestic ports	133,650	
		$3,096,579
Leaves stock in warehouse, June 1st, 1858		$13,400,061
" " " " 1857		27,343,498
" " " " 1856		11,160,701

The large stock at the corresponding date last year was owing to the accumulation which was kept waiting for the change of the tariff.

In Philadelphia the stock in warehouse was reduced from $1,217,443, May 1st, to $1,159,440, June 1st. The general disposition to enforce shorter credits for the sale of goods has no doubt tended to diminish the sales, but the stocks in the hands of retailers have undergone reduction through the demands of consumers, and a certain amount of healthy business has been maintained to make good assortments and to meet the current demand. Hence the business has been of small and more frequent orders, which have served to maintain prices of staple goods, and to induce a rise in the most desirable articles. Nevertheless, the orders

sent abroad for goods have been limited, and in some cases goods can be had here to better advantage even now, than abroad. The low prices of food, and the diminished make of goods, have encouraged holders abroad to look for a large home demand. They are, therefore, less disposed to shade for the American markets. There seems little chance of a general revival of business before another crop shall have been realized. The United States manufacturers have latterly purchased more cotton. Up to the close of April they had taken but 213.641 bales against 517,223 bales same time last year; to the 9th of June they had taken 352,217 bales against 603,298 bales same time last year. That is to say, in the last six weeks they had taken 138,000 bales against 85,000 bales same time last year. Many woolen mills have gone into operation, but the large operators of last year are out of the market, and wool sells 15 a 20 cents lower. These are circumstances which are encouraging to the manufacturer.

We present our usual monthly statement of the commerce of the port of New York. The total foreign imports for the month of May were $7,250,552 less than the corresponding total for last year; they bore nearly the same ratio to the total for May, 1856, but were only $191,000 less than for May, 1855. It will be seen that while last year only *one-third* of the dutiable imports were entered for consumption, the remainder (amounting to upwards of ten-and-a-half millions) being thrown into warehouse to take advantage of the reduction of duties on the 1st of July, the reverse is the case this year, less than one-third ($2,626,978) has been warehoused. The quantity withdrawn exceeds the sum entered :—

FOREIGN IMPORTS AT NEW YORK IN MAY.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$8,082,524	$12,392,421	$5,451,191	$6,574,612
Entered for warehousing.....	2,836,959	3,738,350	10,508,421	2,626,978
Free goods.....	1,156,913	2,151,057	1,674,810	1,928,573
Specie and bullion.....	69,590	184,284	1,070,833	324,540
Total entered at the port.. ...	$11,645,986	$18,411,112	$18,705,255	11,454,703
Withdrawn from warehouse...	1,782,834	1,548,339	2,262,173	2,665,573

The foreign imports at New York for the five months ending with May last year were $15,250,049 greater than for the corresponding period of the previous year. This year the imports for the same period have been less than for many years previous, and are $53,922,109 less than for the five months last year :—

FOREIGN IMPORTS AT NEW YORK FOR FIVE MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Entered for consumption....	$37,877,250	$67,782,614	$62,766,051	$29,667,957
Entered for warehousing....	11,116,646	12,249,016	29,574,660	9,827,520
Free goods.....	6,574,584	9,841,214	8,267,379	10,496,484
Specie and bullion.....	385,337	467,408	4,982,111	1,676,231
Total entered at the port....	$55,958,817	$90,340,252	$105,590,301	$51,668,192
Withdrawn from warehouse.	10,936,450	9,260,986	12,364,162	19,551,824

We have compiled, in this connection, a careful comparison of the imports at New York for the eleven months of the fiscal year now drawing to a close. The total is $49,488,147 less than for the same period of the preceding year, but larger than for the eleven months ending May 31, 1855 :—

FOREIGN IMPORTS AT NEW YORK FOR ELEVEN MONTHS, ENDING MAY 31.

	1855.	1856.	1857.	1858.
Six months, ending Jan. 1	$86,558,097	$89,912,809	$105,254,740	$109,688,702
January	12,945,827	15,578,064	19,006,782	8,105,719
February	12.081,482	16,036,283	25,524,492	9,209,043
March	10,178,057	20,256,958	21,135,504	11,729,702
April	9,107,465	20,057,885	21,218,318	11,169,025
May	11,645,986	18,411,112	18,705,255	11,454,703
Total for 11 months..	$142,511,914	$180,253,061	$210,845,041	$161,356,894

In this connection it will be interesting to notice the comparative receipts of foreign dry goods, and we therefore annex our usual monthly tables. The total of foreign dry goods landed at the port, for the month of May, is $43,436 more than for the corresponding period of last year. A large proportion of the receipts were last year entered for warehousing to await the reduction in duty, and because there was no immediate demand for them for consumption—the trade being remarkably dull :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF MAY.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$549,137	$1,152,057	$303,300	$944,178
Manufactures of cotton	326,545	607,018	340,133	595,666
Manufactures of silk	813,045	1,096,341	303,962	786,112
Manufactures of flax	288,471	509,452	66,078	257,357
Miscellaneous dry goods	183.579	310,871	109,666	162,290
Total	$2,160,777	$3,677,739	$1,128,139	$2,745,603

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$108,228	$68,652	$151,078	$280,009
Manufactures of cotton	77,553	84,138	69,003	189,866
Manufactures of silk	124,181	124,237	115,549	175,305
Manufactures of flax	75,428	24,866	54,672	172,627
Miscellaneous dry goods	57,148	10,430	22,674	49,485
Total	$442,538	$262,323	$412,976	$867,292
Add entered for consumption	2,160,777	3,677,739	1,128,139	2,745,603
Total thrown on the market..	$2,603,310	$3,940,062	$1,541,115	$3,612,895

This year the quantity withdrawn from warehouse has exceeded the quantity entered by $441.080, and by which amount the quantity thrown on the market has exceeded the quantity entered the port.

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$109,821	$254,845	$822,948	$185,342
Manufactures of cotton	58,549	124,049	289,336	81,839
Manufactures of silk	26.633	207,265	567,969	46,571
Manufactures of flax	18,139	42,556	129,235	70,904
Miscellaneous dry goods	51,032	85,865	190,752	41,556
Total	$264,174	$714,580	$2,000,240	$426,212
Add entered for consumption	2,160,777	3,677,739	1,128,139	2,745,603
Total entered at the port	2,424,951	4,392,319	3,128,379	3,171,815

The receipts of foreign dry goods at the port of New York, since January 1st, are less than in any preceding year for a corresponding period, and are $22,315,945 less than for the same period last year :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR FIVE MONTHS, FROM JANUARY 1st.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$4,408,650	$9,541,082	$7,311,527	$3,978,482
Manufactures of cotton	3,362,233	7,775,679	8,833,095	3,501,188
Manufactures of silk	6,529,639	13,018,148	11,246,964	5,706,309
Manufactures of flax	2,051,548	4,035,079	3,044,136	1,400,866
Miscellaneous dry goods	1,936,325	3,239,228	3,195,390	1,220,336
Total	$18,288,395	$37,609,416	$33,631,112	$15,807,181

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,066,763	$745,437	$982,071	$2,033,111
Manufactures of cotton	1,612,108	1,423,649	1,722,977	2,724,955
Manufactures of silk	1,481,547	1,151,440	1,171,994	2,253,144
Manufactures of flax	741,420	693,932	712,939	1,358,310
Miscellaneous dry goods	505,887	213,567	339,537	809,305
Total withdrawn	$5,407,725	$4,228,025	$4,929,618	$9,178,825
Add entered for consumption	18,288,395	37,609,416	33,631,112	15,807,181
Total thrown upon the market	23,696,120	41,837,441	38,560,730	$24,986,006

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$792,168	$843,422	$2,769,628	$948,997
Manufactures of cotton	939,259	945,072	1,622,990	1,337,846
Manufactures of silk	1,271,733	1,179,510	2,374,429	812,188
Manufactures of flax	586,176	413,172	1,135,082	505,410
Miscellaneous dry goods	463,115	314,667	549,345	358,519
Total	$4,052,451	$3,695,843	$8,451,474	$3,962,460
Add entered for consumption	18,288,395	37,609,416	33,631,112	15,807,181
Total entered at the port	$22,340,846	$41,305,259	$42,082,586	$19,769,641

The quantity thrown on the market during five months has been $5,216,365 more than the quantity brought into port in the same period, showing the considerable reduction in stocks which has taken place, and indicating a better actual business than has been generally supposed—the quantity put upon the market being actually greater than for the same period of 1855.

The exports of domestic produce from New York to foreign ports have been less than for many years previously, owing to the decline in breadstuffs. The shipments of specie were remarkably large last year ; have been very small all this year ; indeed, but for payments on extended paper, probably none would have gone.

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF MAY.

	1855.	1856.	1857.	1858.
Domestic produce	$5,071,890	$5,563,205	$6,046,643	$4,262,789
Foreign merchandise (free)	244,254	68,194	169,451	113,799
Foreign merchandise (dutiable)	358,782	247,079	294,839	229,990
Specie and bullion	5,320,152	3,812,865	5,789,266	1,790,275
Total exports	$10,995,028	$9,691,343	$12,300,199	$6,397,353
Total, exclusive of specie	5,674,876	5,878,478	6,510,933	4,606,578

This leaves the exports from New York to foreign ports, exclusive of specie, since January 1st, 7,271,245 less than for the first five months of last year, and less than for either of the two previous years. The specie shipments for the same time also show a great decline:—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR FIVE MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce.....	$22,380,718	$29,503,439	$29,056,328	$22,197,453
Foreign merchandise (free).....	2.555,875	421,879	1,176,049	623,792
Foreign merchandise (dutiable)..	2,253,546	1,273,569	1,789,543	1,929,435
Specie and bullion..... ...	13,212,402	9,923,473	14,458,708	11,765,785
Total exports.....	$40,402,541	$41,122,360	$46,480,633	$36,516,465
Total, exclusive of specie...	27,190,139	31,198,887	32,021,925	24,750,680

We have likewise prepared a comparative summary of the exports from New York to foreign ports for the expired portion of the fiscal year. The total, exclusive of specie, is $16,165,305 less than for the corresponding eleven months of the preceding year. We have added the exports of specie for eleven months at the foot of the summary, in order to show the total foreign exports for the period indicated:—

EXPORTS, EXCLUSIVE OF SPECIE, FROM NEW YORK TO FOREIGN PORTS, FOR ELEVEN MONTHS ENDING MAY 31ST.

	1855.	1856.	1857.	1858.
Six months, ending Jan. 1st..	$29,892,747	$39,915,729	$43,596,501	$34,702,441
January	5,895,517	5,511,230	4,884,170	4,689,739
February	4,565,091	5,606,209	5,938,786	4,173,577
March.....	6,341,935	8,703,244	9,015,891	5,180,860
April.....	4,712,720	5,499,726	5,672,145	6,099,926
May.....	5,674,876	5,878,478	6,510,933	4,606,578
Total, eleven months.....	$57,082,886	$71,114,616	$75,618,426	$59,453,121
Specie.....	34,195,941	20,474,418	36,409,114	33,727,897
Total exports, 11 months.	$91,278,827	$91,589,034	$112,027,540	$93,181,018

The cash duties received at the port have greatly declined, but for the last month are not so much less as compared with the same month last year; since then, a large amount of goods went into warehouse.

CASH DUTIES RECEIVED AT THE PORT OF NEW YORK.

	1855.	1856.	1857.	1858.
Six months...	$18,358,927 32	$20,087,362 28	$22,978,124 43	$16,345,553 57
January	2,460,038 32	3,684,654 85	4,537,378 43	1,641,474 59
February.....	2,665,164 94	3,576,919 14	5,117,249 85	2,063,784 86
March.....	2,363,084 95	4,382,107 47	3,752,184 98	2,213,452 15
April.....	1,994,710 10	3,913,885 39	3,301,607 05	1,736,510 41
May.....	2,400,482 60	2,457,153 64	1,907,289 71	1,748,227 54
Total, 11 months.	$30,342,408 23	$39,101,082 77	$41,593,834 45	$25,749,003 12

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

CREDIT MOBILIER.

This institution of Paris has attracted much attention of late, in consequence of its great pretensions, its great temporary success, and the great fluctuations in the value of its shares. It has been regarded in some quarters as a remarkable emanation of genius, adapting itself to a peculiar want, developed by the vast aggregation of credits in Paris, and which encountered the danger of stagnation for want of some means of, so to speak, condensing public confidence in them. The great mass of real capital that goes into investments is earned and saved by persons who have not the means of ascertaining the exact values of the multitudinous securities offered upon the market. This idea was supposed to have been embodied by the leading bankers of Paris—the heads of the financial world—who were, as a company, to issue stock and bonds which should be known to everybody, and apply the proceeds to the wants of the most useful company. After the idea was well matured a grant or *concession* was made to the financial magnates of Paris, including Emile Pereire, Isaac Pereire, Benoit Fould, Adolph d'Eichtel, Ernest Andre, Le Baron Seilliere, Henri de Noailles, Le Duc de Monchy, Le Duc Raphael de Galliera, Jose Louis de Abaroa, Charles Mallet, Gedeon Marc des Arts, and others. The charter dated November, 1852; duration, 99 years. The capital is 120,000 shares of 500 francs each, or 60,000,000 francs, or $2,000,000. The powers of the company are to purchase public securities, shares and bonds in companies or corporations, particularly railroads, mines, canals, &c., established or to be established; to issue its own bonds for a sum equal to its subscriptions and purchases; to sell, pledge, lend or transfer, or exchange for others, all securities that it may acquire; to lend on stocks and to grant credits on pledge of stocks; to receive deposits; to act as agents for any other companies, make collections for them, pay the coupons or dividends, and all general business. The company is never to sell stocks short, or buy on time privileges.

With these powers, the company had that of emitting its bonds to the extent of ten times its capital, or 600,000,000 francs, at long dates. If these, under such high names, could command public confidence, the means of the company would be almost unlimited.

When speculation runs high in stocks, embracing all gambling transactions, a company possessed of such powers is at once recognized as of the highest utility. It is in fact a mere stockbroker. A chief part of its business is what is called "report" in Paris, "continuation" in London, and no distinctive name in New York, because stock gambling here, great as it is, is not sufficiently organized to permit of classification. The operation is simply to buy a stock for cash, and resell it at a higher price, the buyer to call for it in 30 a 60 days. Thus the stock list quotes New York Central at 84 cash, and 84¼ buyer 60; the ¼ per cent is the "report." The French 3 per cents being at 69, the holder sells them to the Credit Mobilier at that rate cash, and buys them back at 69¼ end of the month, paying interest in addition. The company employ from 50 to 80 millions in this way. In New York many stockbrokers operate in the same way when

the market is active for a rise, because then the time price is high enough to pay. When the market is falling, as last year, the "bears" would give a high price for the cash stock and throw it upon the market at less rates to produce a fall; the time price is then less than the cash price. This in Paris is called "deport." Speculation ran so high in 1855, that the company was forbidden to issue its bonds for the present. The operations of the company each year since its organization have been as follows:—

	1853.	1854.	1855.	1856.	1857.
Capital paid in....	56,503,875	60,000,000	60,000,000	60,000,000	60,000,000
Accounts current..	65,839,059	64,924,379	103,179,808	101,068,217	68,546,431
Other liabilities...	.....	.....	.....	326,164	3,911,264
Unpaid dividends.	941,856	3,408,198	858,928	951,475	3,025,373
Profit and loss....	3,594,161	4,538,334	26,833,357	12,000,869	4,133,733
Reserve.....	.....	420,936	1,696,083	2,000,000	2,000,000
Total.....	126,878,452	133,291,848	192,567,708	176,316,727	141,616,803
Investments—					
Rentes.....	15,562,488	25,246,467	40,069,264	9,100,498	10,205,415
Shares.....	.....	....	59,481,593	53,080,781	71,175,604
Bonds.....	21,697,165	32,213,625	32,844,601	29,883,853	2,183,072
Total.....	37,259,649	57,460,092	132,345,458	92,064,862	83,563,991
Discounts.....	37,884,769	67,353,376	84,325,390	75,780,028	49,341,450
Stock loans....	45,445,539				
Real estate....	1,238,163	1,328,566	1,082,219	1,336,402	1,449,436
Cash.....	5,105,331	7,149,813	5,981,359	7,135,432	7,261,925
	126,878,452	133,291,848	192,567,708	176,316,727	141,616,803

The year 1855 was the great year, and the profits were very large, mostly on "reports." This item of profits has subsided with the diminution of speculation. According to its charter the net profits are to be divided—1st. 5 per cent on the capital for interest to stockholders. 2d. 5 per cent for a reserve fund. The surplus then belongs one-tenth to the directors, and the remainder to the stockholders. Under this arrangement the dividends have been as follows:—

	Gross receipts.	Expenses.	Net.	Dividends. Five per cent on capital.	Dividends. Extra.	Per share. Francs.	Per c't.	Price p'r share.
1853..	7,582,723	2,158,561	5,424,161	3,000,000	1,200,000	40	8	640 a 960
1854..	10,335,040	2,556,477	7,779,563	3,000,000	4,080,000	59	12	480 a 792
1855..	31,870,776	3,788,775	28,082,001	3,000,000	22,627,901	213	43	722 a 1,650
1856..	17,216,424	1,966,443	15,249,981	3,000,000	10,800,000	115	23	1,140 a 1,982
1857..	7,982,905	849,172	7,133,733	3,000,000	none.	25	5	1,410 a 712
1858..	.....	.....	.....	.....	.....	...	..	962 a 725

After paying as high as 43 per cent on its stocks in 1855, the profits have rapidly fallen, and this year, although the company received nominal profits of 7,133,733 francs, they confined their dividends to the 5 per cent required by the charter, intimating that the attempt on the Emperor's life had produced such an adverse state of affairs as to make this course prudent. The sources of profit in three years were as follows:—

	1854.	1856.	1857.
On Investments.....francs	7,643,416	11,435,572	4,484,629
Commissions and interest.....	2,161,417	1,480,719	2,709,367
Reports.....	376,861	4,267,736	698,649
Sundries.....	93,836	31,337	90,270
Total.....	10,335,040	17,216,424	7,982,905

	1854.	1856.	1857.
Expenses.....	2,496,143	926,158	671,592
Depreciation.....	24,824	1,040,284	177,580
Net.....	7,824,572	15,249,981	7,133,733

These large fluctuations show the gambling nature of the investments. In the same period where this has risen 400 per cent, the funds have varied 10 per cent. The profits have now declined on "reports;" last year they were under 700,000 francs, against 4¼ millions in the previous year, and this source of profit is now nearly extinguished. The directors of the society are some of the greatest financial speculators of the age, and can buy for the company, as directors, securities from themselves as individuals. In 1854 the company had invested 57,000,000 francs in rentes and bonds, and nothing in "shares." In 1857, after the panic, it holds 71,175,000 francs of "shares," and 12,300,000 francs only of rentes and bonds. The investment is evidently for the worse. In 1857, on the employment of 141 millions the profits were only 7,133,000 francs, while in 1854, on the employment of 133 millions, the profits were 7,779,000 francs. On the large amount of shares and advances which the concern holds they show but 177,000 francs depreciation, which would be ¼ per cent, whereas the fall on all stocks has been severe. The company have, however, reserved the nominal surplus of 4,133,733 francs to meet depreciation to be yet ascertained, and which they intimate may have resulted from the attempted assassination of the Emperor, January 14. The shares of 500 francs of the society that were at 1,982 francs in May, 1856, are now at 700.

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,988	$28,561,946	$6,490,403	$78,635,225	$13,601,357	$65,033,867
9	98,792,757	29,176,838	6,625,464	79,841,362	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,598,348	13,074,762	69,523,836
30	102,180,089	31,273,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,873,931	86,000,465	15,489,083	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,583	70,425,909
20	103,706,734	31,416,076	6,542,618	86,778,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 5	105,021,863	32,789,731	6,854,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,432	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,231	90,644,098	16,429,056	74,201,709
April 3	110,588,354	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,436	7,245,809	93,566,100	16,775,237	76,790,863
17	111,341,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111 868,456	35,064,213	7,431,814	98,438,506	17,875,203	80,563,303
8	112,741,955	35,453,146	7,735,056	101,165,806	19,488,661	81,727,146
16	114,199,288	34,730,728	7,502,975	101,884,163	18,284,868	83,599,295
22	115,658,082	34,047,446	7,307,445	101,917,869	17,620,131	84,297,738
29	116,650,943	31,496,144	7,252,616	99,351,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,830	101,489,535	17,982,648	83,506,887
12	116,022,152	33,367,253	7,367,725	100,787,073	16,503,899	84,283,194

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Dec. 22....	$50,209,500	$4,579,000	$5,627,000	$15,606,000	$4,054,800	$5,888,000
29....	50,377,000	4,789,500	5,180,400	16,326,600	3,998,000	5,688,000
Jan. 5....	50,726,800	5,028,000	5,416,000	17,073,800	3,911,000	5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,868,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25....	51,772,412	6,073,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,895,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,137,972	7,079,606	5,898,660	18,429,945	5,068,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,329,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,137,000
15....	52,068,743	7,559,698	5,291,549	18,909,682	5,837,534	6,011,377
22....	51,999,451	7,235,531	5,163,492	19,029,251	.....	.....
29....	51,632,451	7,905,491	5,159,569	18,895,249	.....	.....
April 5....	51,918,000	8,259,500	5,477,500	20,136,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	.....	.....
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,533	7,363,702
May 4....	51,499,700	9,243,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,903,020	20,846,860	6,530,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,037	7,265,607	6,399,061
14....	53,951,082	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,802,374	$3,770,701	$1,011,033	$11,465,263	....
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512,765	....
Jan. 25....	20,730,958	4,243,966	1,062,192	11,547,697	.....
Feb. 1....	20,423,704	4,465,698	1,096,462	12,195 126	.....
Feb. 8....	20,359,226	4.668,085	1,293,045	11,904,519	.....
Feb. 15....	20,071,474	4,868,983	1,559,218	11,889,342	.....
Feb. 22....	20,161,260	4,924,906	1,686,689	12,014,605	.....
Mar. 1....	20,251,066	4,903,936	1,808,734	11,830,582	.....
Mar. 9 ...	20,471,161	5,147,615	1,916,852	12,253,282	.....
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	.....
Mar. 28....	20,796,957	5,4[illegible]3,358	2,140,463	12,413,191	.....
Mar. 30....	21,020,198	5,661,782	2,296,444	13,201,599	.....
Apr. 6....	21,657,152	5,937,595	2,647,899	13,422,318	3,056,181
Apr. 12....	21,656,028	6 133,000	2,675,193	13,784,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,300	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,243,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,978
May 17....	22,592,841	7,019,204	2,351,709	15,548,287	3,055,076
May 24....	22,969,576	6,963,371	2,410,181	15,354,423	3,221,858
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,806	3,565 218

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks.
Sept. 28.....	$18,480,161	$241,906	$1,959,385	$1,925,122	$1,194,967
Jan. 11.....	17,701,725	565,553	1,552,822	2,025,956	1,338,435
Mar. 15.....	16,925,349	520,828	1,310,787	1,903,082	1,043,930
Apr. 5.....	17,037,949	591 861	1,409,695	1,946,998	1,080,817
19.....	17,169,822	564,033	1,485,226	1,965,816	996,961
May 3.....	17,203,225	566,869	1,393,553	2,068,335	1,089,333
17.....	17,054,877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,555,717	2,088,878	1,208,543

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,230,320	$6,196,459	$7,442,142	$2,297,348	.....
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,370	2,888,878	$816,132
19...	17,818,222	9,942,880	4,224,042	10,996,494	3,526,929	1,266,660
26...	17,741,355	10,320,714	4,336,624	11,579,048	3,951,212	1,363,473
Jan. 2...	18,149,456	10,505,182	4,535,951	11,948,905	4,114,622	1,590,072
9...	.....	10,626,260	4,778,589	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,508	5,095,771	1,552,855
23...	14,559,131	10,693,330	4,767,816	12,573,173	5,201,368	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,186	1,379,908
Feb. 6...	14,490,001	11,187,298	5,037,906	14,589,408	5,984,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,368,835	6,624,657	1,283,609
20...	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,034
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,332,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,347	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,434	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,686	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,453,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,634	15,658,182	9,321,852	1,410,349
17...	16,480,547	10,854,012	7,685,539	15,640,948	9,085,522	1,381,527
24...	16,094,721	10,798,455	7,828,399	15,589,151	9,221,277	1,473,994
May 1...	15,933,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,882
8...	15,459,435	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,638	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,534	10,257,171	7,965,484	.....	8,269,260	1,102,648

PITTSBURG BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due banks
April 12.....	$5,513,821	$1,194,282	$1,287,095	$1,305,294	$70,286
19.....	5,570,585	1,220,633	1,291,091	1,345,062	87,713
26.....	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May 3.....	5,784,492	1,192,216	1,360,551	1,504,549	40,312
10.....	5,763,651	1,171,627	1,365,551	1,585,182	74,491
17.....	5,737,072	1,191,663	1,378,401	1,491,620	111,260
24.....	5,769,868	1,175,334	1,371,586	1,464,767	124,044
31.....	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June 7.....	5,895,461	1,207,637	1,426,586	1,540,926	90,384
14.....	5,865,951	1,218,342	1,385,926	1,556,862	108,994

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
April 10.....	$1,255,694	$1,788,970	$1,673,628
17	1,161,065	1,793,945	1,720,728
24.....	1,250,295	1,832,915	1,770,882
May 8.....	1,869,316	1,240,431	1,959,823
15.....	1,494,025	1,864,960	2,161,503
22.....	1,547,938	1,825,810	2,225,285
29.....	1,543,531	1,921,475	2,396,027
June 5.....	1,557,119	2,087,890	2,452,141

FINANCIAL ACCOUNTS OF THE STATES OF THE UNION.

MICHIGAN—OHIO—ILLINOIS—IOWA—VIRGINIA.

MICHIGAN.

The Legislature of Michigan, at its late session, passed a law authorizing a loan of $266,000—$216,000 to be applied in taking up old bonds, and $50,000 to be placed in the hands of the Governor and State Treasurer to be used if they deem it necessary.

OHIO.

The valuation of property in Ohio for thirty-two years, has been as follows :—

Years.	Value.	Years.	Value.	Years.	Value.
1825	$59,527,336	1845	$144,160,467	1855	$860,877,354
1841	128,353,657	1850	439,966,340	1857 ...	849,414.599

The slight falling off of 1857, was owing to a new rule of taxing personal property, by which a large amount, which was placed on this list of 1855, was taken off in 1857.

The following schedules will exhibit the taxable property of the State as valued for taxation ; the respective amounts of State, county, and local taxes ; and the total amount of taxes levied in each of the last three years :—

I. TAXABLE PROPERTY VALUATION.

	1855.	1856.	1857.
Number of acres.....	25,220,083	25,191,689	25,329,620
Value of lands	$432,261,785	$428,245,177	$435,602,055
Value of town and city lots	145,596,754	147,389,319	149,994,623
Value of chattels	283,018,815	240,024,550	263,631,803
Total taxable valuation	$860,877,354	$820,661,085	$849,329,031

II. STATE, COUNTY, AND LOCAL TAXES.

	1855.	1856.	1857.
Total county taxes	$2,762,805 02	$2,232,294 60	$2,384,508 82
Township, city, & special taxes...	1,943,608 06	2,838,942 68	3,247,406 05
Delinquencies and forfeitures....	493,781 35	312,144 41	392,944 51
Total local taxes	$6,199,704 38	$5,383,381 90	$6,026,859 38
Total State taxes.....	2,754,897 51	2,626,132 83	2,592,263 55
Excess of local over State taxat'n	$3,444,896 86	$2,757,248 26	$3,434,595 83
Total taxes on duplicate.....	3,954,511 89	3,009,513 92	3,619,122 93

The public debt of the State, of all descriptions, appears in the following statement :—

FOREIGN AND DOMESTIC STATE DEBT OF OHIO.

	Foreign debt outstanding, Jan. 1, 1858.	Interest paid annually on outst'd'g debt.
Five per cent stock, payable at the pleasure of the State after the 31st December, 1865	$1,025,000 00	$51,250 00
Six per cent stock, payable at the pleasure of the State after the 31st December, 1860.....	6,413,525 27	384,799 52
Six per cent stock, payable at the pleasure of the State after the 31st December, 1870.....	2,153,531 98	131,011 01
Six per cent stock, payable at the pleasure of the State after the 31st December, 1875.....	1,000,000 00	95,000 00
Six per cent stock, payable at the pleasure of the State after the 31st December, 1886.....	2,400,000 00	144,000 00
Total amount of foreign State debt.....	$13,621,857 20	$807,061 43
Domestic debt, payable at Columbus, total amount.....	277,250 37	16,523 10
Total foreign and domestic State debt.....	$13,899,067 57	$823,584 53
Irreducible State debt, total.....	2,503,927 76	141,402 27
Total State debt of all descriptions.....	$16,402,005 33	$964,986 80

Existing laws require, the Governor remarks, the appointment of a transfer agent and registrar at New York, and regulate the transfer of stocks and the payments of interest and debt through this agency. Experience has shown the

danger of confiding powers, such as are necessarily vested in these officers, to persons beyond the jurisdiction of the State, and not amenable to its laws. If obligations, assumed at the creation of the debt and as part of its consideration, require their appointment and maintenance, these obligations must be fulfilled in good faith. If it be otherwise, the offices should be abolished, and all transfers should be made within the State, and under the direction of its executive officers. I commend this subject to legislative investigation and consideration.

ILLINOIS.

The Auditor of the State of Illinois has published a tabular statement of the value of real and personal property in the State, which, as it appears, is very satisfactory. The total amount is $407,477,367. Cook County is set down at $45,680.333. The next highest is Sangamon County, $12,064.994. We copy the aggregate of this table :—

Counties.	Real and personal property.	Counties.	Real and personal property.	Counties.	Real and personal property.
Adams	$7,075,557	Henderson	$2,024,217	Moultre	$1,878,633
City of Quincy	4,056,961	Henry	5,269,804	Ogle	3,875,608
Alexander	1,952,664	Iroquois	3,945,949	Peoria	9,867,238
Bond	1,860,978	Jackson	3,180,983	Perry	1,239,507
Boone	1,776,261	Jasper	1,713,966	Piatt	2,229,608
Brown	1,709,941	Jefferson	1,858,879	Pike	6,842,497
Bureau	6,285,080	Jersey	2,874,735	Pope	954,713
Calhoun	845,986	Jo Daviess	5,444,834	Pulaski	1,086,909
Carroll	2,874,609	Johnson	608,422	Putnam	1,468,995
Cass	3,203,651	Kane	5,075,674	Randolph	2,650,979
Champaign	5,1?3,715	Kankakee	2,676,137	Richland	1,670,825
Christian	2,437,182	Kendall	3,195,003	Rock Island	6,609,440
Clark	2,310,240	Knox	9,093,762	Saline	1,099,263
Clay	1,757,244	Lake	2,954,424	Sangamon	12,064,994
Clinton	3,276,887	La Salle	8,420,035	Schuyler	3,035,543
Coles	5,815,693	Lawrence	2,186,999	Scott	1,273,780
Cook	45,680,333	Lee	3,597,440	Shelby	2,589,019
Crawford	1,921,683	Livingston	2,491,969	Stark	2,437,970
Cumberland	1,515,807	Logan	5,844,997	St. Clair	7,292,482
De Kalb	3,644,669	Macon	3,020,821	Stephenson	4,512,769
De Witt	2,791,593	Macoupin	5,301,166	Tazewell	6,816,162
Du Page	2,832,744	Madison	8,108,779	Union	1,763,616
Edgar	5,327,773	Marion	2,575,846	Vermillion	7,003,262
Edwards	1,009,010	Marshall	2,286,074	Wabash	1,158,871
Effingham	1,175,506	Mason	2,380,900	Warren	4,948,959
Fayette	1,543,854	Massac	836,018	Washington	2,683,748
Franklin	1,021,708	McDonough	6,042,780	Wayne	1,722,354
Fulton	7,181,778	McHenry	3,920,209	White	2,186,961
Gallatin	1,740,456	McLean	9,211,200	Whiteside	4,705,872
Green	3,723,960	Menard	3,955,110	Will	7,307,186
Grundy	2,852,980	Mercer	3,962,758	Williamson	1,118,550
Hamilton	1,859,686	Monroe	1,738,377	Winnebago	6,061,039
Hancock	8,226,116	Montgomery	3,268,749	Woodford	3,559,269
Hardin	590,511	Morgan	6,932,614		
Total value of real and personal property					$407,477,367

IOWA.

The constitution of the State of Iowa provides as follows :—

SECTION 1. The credit of the State shall not, in any manner, be given or loaned to, or in aid of any individual, association, or corporation; and the State shall never assume or become responsible for the debts or liabilities of any individual, association, or corporation, unless incurred in time of war for the benefit of the State.

SEC. 2. The State may contract debts to supply casual deficits or failures in revenues, or to meet expenses not otherwise provided for; but the aggregate amount of such debts, direct and contingent, whether contracted by virtue of one or more acts of the General Assembly, or at different periods of time, shall never exceed the sum of $250,000; and the money arising from the creation of such debts shall be applied to the purpose for which it was obtained, or to repay the debts so contracted, and to no other purpose whatever.

Under this last section of the constitution, the State has recently made a loan of $200,000 at par, bearing 7 per cent interest, of Messrs. Cooke & Sargent, of Davenport, Iowa. The constitution also provides, that no other debt than specified above shall be contracted unless sanctioned by direct vote of the people, and that such debt shall be for some single work or object, and the act creating the debt shall also lay a direct tax for the payment of the interest and the reimbursement of the principal within twenty years.

VIRGINIA.

The Auditor of public accounts of the State of Virginia reports, under date of March 29, that the amount to be added to the public debt under acts of the last and present session of the Legislature will be $2,925,800, but that it will be necessary to increase the State taxes to meet liabilities growing out of the recent appropriation. In his report the Auditor says:—

In my report of November last, I estimated that there would be a deficiency in the treasury on the 1st of October, 1858, to be supplied by temporary means, to the amount of	$423,191 98
And that there would be outstanding unpaid treasury notes amounting to	400,000 00
Total floating debt	$823,191 98
To which must be added appropriations to pay claims, &c.	51,993 35
And if the General Assembly shall adjourn at the end of thirty days, the expenses of the two sessions being $163,694 10, which exceeds my estimate by the sum of	17,694 40
Probable amount of interest payable 1st July, 1858, on new stock	20,000 00
Prior to the 1st of January, 1859, about one-half of the appropriations, &c., will have been converted into stock, so that the interest and one per cent for the sinking fund will probably amount to	74,032 00
On the 1st of July, 1859, there will probably be six months' interest on the new debt of $2,925,800	77,774 54
Total	$1,064,686 22
Apply excess of taxes over ordinary expenses	613,049 64
Deficit, 1st October, 1859	$451,637 08

Whether it will be necessary to increase the taxes to meet the old and new charges upon the treasury depends upon the time within which it is desirable to pay off the liabilities. The debts which may be presented are principally treasury notes held by the banks, and balances due to the Literary Fund. The stock of the former, to a large amount, is owned by the State, and she may, with great propriety, approach the banks for the temporary means, and the balances due to the latter are entirely within the control of the General Assembly.

Beside these facts, and with the full charge upon the treasury on account of the new debt, the present rate of taxation is sufficient to meet all the ordinary expenses of the government, and produce a surplus annually of more than four hundred thousand dollars.

In my report of the 25th of November last, I estimated the receipt from taxes to be		$3,472,459 22
And that the ordinary annual expenses would be...	$2,859,409 58	
Add to these charges the interest on new debt.....	204,806 00	
		3,064,215 58
Excess of receipts over ordinary expenses.....		$408,243 64

GOLD.

The gold fever appears, by the late California accounts, to be rapidly on the increase again. The production of the two countries since the discoveries in Australia, are given by the *Alta Californian*, as follows:—

	Australia.	California.	Total.
1851.....	$2,083,060	$42,582,691	$44,665,755
1852.....	41,784,380	46,586,134	88,320,514
1853.....	42,292,260	57,831,024	100,123,288
1854.....	36,623,680	51,328,653	87,952,333
1855.....	43,898,820	43,080,211	86,979,031
1856.....	52,886,740	48,887,543	101,774,283
1857.....	49,673,820	48,976,207	98,650,027
	$269,697,760	$338,712,467	$608,410,227

This has been the result of mining during the last six years, and the *Californian* estimates that some $200,000,000, in addition to this, has found its way into the world at large through private channels. The result for the last year, it is apparent, has been above the average of previous years, and for the previous year the results are still greater. The value of gold, it is to be remembered, is now greater than it has been since the discoveries in California relatively to other metals, and the excitement in California, in relation to new discoveries, seems to be very great. In Carson Valley, the newly discovered diggings are represented as "fabulously rich," and the discoveries on Frazer's River have created a still greater excitement. These circumstances are likely greatly to promote the production of gold. The California papers advises caution to those who are so eager to seek the new diggings, but do not contradict the reports—seeking only to moderate the excitement The chances are that the gold product from all quarters will be greatly larger in 1858 than it has been in any former year.

BANKS OF ILLINOIS.

The Bank Commissioners of the State of Illinois report respecting the banks of that State as follows:—

Number of banks.....	66
Number in liquidation	27
Number doing business.....	39
Missouri bonds.....	$2,994,000
All other bonds.....	3,105,399
Total.....	$6,098,499
Circulation	5,002,377
Excess of securities.....	$1,095,022

There is that excess of securities, if the bonds are at par.

BANKS IN CONNECTICUT.

The Governor of Connecticut, in his message, remarks upon the operations of the banks as follows:—

From the examination I have given this subject, I am led to recommend—First. That the banks be prohibited from having interest on deposits. Second. That they be prohibited from making loans on call. Third. That their circulation be limited to an amount not exceeding seventy-five per cent on their capital stock. Fourth. That they be required to make monthly returns of their condition to the Bank Commissioner. Fifth. That they be required to keep on hand an amount of specie equal to ten per cent on the total amount of their indebtedness, and if during any month their average amount shall not be equal to this requirement, all discount shall cease until they shall be restored to such a condition.

We have seventy-six banks in the State, with an aggregate capital of $20.618,723, the condition of which will appear in detail in the report of the Bank Commissioners. Their observation and experience will enable them to give you valuable suggestions relative to the operations of our banking system. Their report will also exhibit the condition of the several saving and building associations—under our laws they possess the peculiar privilege of taking a higher premium for the use of money than private citizens or any other associations.

It will be well to consider whether you may not with a true and just regard to all their rights, and your obligations to the public, limit a time for closing their business, or enact a law which shall prohibit them from taking any bonus on any future loans, and confine them to an interest of 6 per cent per annum.

INTEREST LAW OF PENNSYLVANIA.

We publish in full the new interest law of Pennsylvania, as an example for the legislators of our own State:—

AN ACT REGULATING THE RATE OF INTEREST.

SECTION 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same, That the lawful rate of interest for the loan or use of money, in all cases where no express contract shall have been made for a less rate, shall be six per cent per annum, and the first and second sections of the act passed 2d March, one thousand seven hundred and twenty-three, entitled "an act to reduce the interest of money from eight to six per cent per annum," be and the same is hereby repealed.

SEC. 2. That when a rate of interest for the loan or use of money exceeding that established by law shall have been reserved or contracted for, the borrower or debtor shall not be required to pay to the creditor the excess over the legal rate, and it shall be lawful for such borrower or debtor, at his option, to retain and deduct such excess from the amount of any such debt; and in all cases where any borrower or debtor shall heretofore or hereafter have voluntarily paid the whole debt or sum loaned, together with interest exceeding the lawful rate, no action to recover back any such excess shall be sustained in any court of this Commonwealth, unless the same shall have been commenced within six months after the time of such payment. Provided always, that nothing in this act shall effect the holders of negotiable paper taken *bona fide* in the usual course of business.

G. NELSON SMITH, Speaker, pro tem., House of Representatives.
WM. H. WELSH, Speaker of the Senate.

APPROVED, the 28th day of May, A. D., one thousand eight hundred and fifty eight.

WM. F. PACKER.

GENERAL BANKING LAW IN MINNESOTA.

The provisions of the General Banking Law of Minnesota are similar to those of many of the other States. The law authorizes the Governor to appoint a Bank Controller, who is to have charge of the securities, issue the circulation, etc. Any person or association may commence banking under this law, with a capital of not less than $25,000. The notes are to be countersigned by the Bank Controller, the bank assigning in trust to the State as security therefor United States or State stocks, producing an average of at least six per cent interest, on which the Controller is to issue to the bank circulating notes to the amount of 90 per cent of the current value of the stock (so deposited) in New York at the time of deposit; and in the event of a depreciation of 10 per cent, the bank to make up the deficiency by depositing additional stock.

The banks are required to keep in their vaults specie equal to one-fifth of their circulating notes; to make quarterly statements of their affairs to the Controller, who shall cause the same to be published.

A Bank Commissioner, in company with the Bank Controller, must personally examine the books and vaults of all the banks in the State at least four times in each year.

If a bank fails to redeem its notes in specie on presentation, the bill-holder may have the same protested, in packages, at the expense of the bank, and the Controller is directed, at the expiration of forty days, to close up the bank, sell the securities forthwith, and redeem the notes.

The law prohibits all banking except under this act.

PHILADELPHIA BANKS—DIVIDENDS.

All the Philadelphia banks have declared dividends for May, except the Girard Bank, which omits this half-year, and the North America, which usually declares in January and July:—

Banks.	Capital.	Dividend, per cent.	Amount of dividend.
Philadelphia Bank	$1,800,000	4	$72,000
Farmers' and Mechanics'	2,000,000	3	60,000
Commercial Bank	841,400	3	25,000
Mechanics' Bank	800,000	5	40,000
Northern Liberties Bank	500,000	4	20,000
Western Bank	418,600	4	16,744
Manufacturers' and Mechanics'	544,375	3	16,331
Southwark Bank	250,000	5	12,500
Bank of Commerce	250,000	5	12,500
Tradesmen's Bank	150,000	4	6,000
Penn Township	350,000	3	10,500
Kensington	250,000	5	12,500
Consolidation	298,570	3	8,957
Total	$8,452,945	..	$313,274

BANKING IN MAINE.

The following is the recapitulation of the condition of all the banks in the State, on Saturday afternoon preceding the first Mondays of April and May, 1858:—

	April.	May.
Capital stock	$7,526,700	$7,364,475 00
Bills in circulation	3,173,665	2,980,151 00
Specie	617,264	601,272 16
Deposits	1,994,526	2,104,467 52
Loans	11,179,716	11,281,842 72
Amount due from other banks	1,028,327	951,093 47

BANKS OF CHARLESTON, SOUTH CAROLINA.

	May 1st.			From March	
	Circulation.	Deposits.	Specie.		in specie.
Bank of Charleston*	$225,000	$600,000	$250,000	Dec.	$33,000
Railroad Bank	610,000	69,000	135,000	Inc.	41,000
Planters' and Mechanics'	465,000	218,000	143,000	Inc.	4,000
Farmers' and Exchange	685,000	124,000	158,000	Inc.	117,000
State Bank*	85,000	325,000	74,000	Dec.	4,000
Union Bank*	65,000	191,000	63,000	Dec.	11,000
Bank of South Carolina	74,000	181,000	45,000	Inc.	17,000
Bank of the State of South Carolina	1,706,000	798,000	73,000	Inc.	21,000
People's Bank	545,000	151,000	95,000	Inc.	37,000
	3,460,000	2,117,000	1,086,000		
Total increase					$189,000

The circulation of these banks has decreased from March, $1,177,000, or a fourth, and the deposits $1,060,000, or a third, while the specie has increased.

BANK LAW OF VIRGINIA.

The following is a copy of the law which is to go into operation in Virginia in April, 1859:—

1. *Be it enacted by the General Assembly*, That it shall be the duty of every branch of a bank, which is now or may hereafter be authorized by law, in addition to the redemption now required at such branch, to receive on demand all circulating notes issued or payable by such branch, which may be presented for payment at the parent bank of such branch, at a rate of discount not exceeding ¼ of 1 per cent; and for failure to redeem the same, the holder thereof may recover the same damages, and in the same mode now provided by law, for failure to pay in specie at the office or bank where payable; provided, that the other branches of the Exchange Bank of Virginia shall redeem at the branch thereof, established in the city of Richmond, on like terms.

2. Every independent bank, which is now or may hereafter be authorized by law, shall establish an agency for the redemption of its circulating notes in the city of Richmond, or in Baltimore, in the State of Maryland, in addition to the redemption now required by law. The location of such agency shall be certified by the president of the bank to the Governor of Virginia, with each quarterly report of the bank, and shall be published with the same. For failure to establish and report the agency, the bank shall forfeit to the Commonwealth one hundred dollars for the first offence, and five hundred dollars for each separate violation of the law thereafter.

3. It shall be the duty of the bank, in addition to the redemption now required by law, to redeem on demand all circulating notes issued by such bank, or payable by the same, which may be presented for payment at the agency thereof, at a rate of discount not exceeding ¼ of 1 per cent; and for failure to redeem the same, the holder thereof may recover the same damage, and in the same mode now provided by law for failure to pay in specie at the bank where payable.

4. Whenever the notes of any bank shall be presented for redemption at the bank where they are payable, such bank or branch may redeem the same by a specie draft at par for the amount upon the banker or agent in Richmond or Baltimore, where it has made provision for the redemption of its notes; provided the aggregate amount of the notes so presented and held by the same person shall exceed the sum of five hundred dollars; and the person refusing to accept such draft in redemption of the notes held by him, shall not be entitled to proceed against such bank under the section of the chapter of the Code, or under

* Those marked with a * are specie-paying.

the provisions in the charters of the stock banks requiring the Treasurer of the State to sell the securities held by such bank.

5. No bank or branch thereof shall give any certificate of deposit, draft, or other evidence of debt, which is not payable in specie.

6. No bank or branch thereof shall pay out bills or notes of any other bank or branch, except such as it will receive at par, in payment of debts due the bank.

7. No bank shall directly or indirectly loan its bills or notes for circulation to any person, persons, or corporation, under any agreement or understanding that such persons or corporation shall protect or guaranty the circulation of such or any other bills or notes issued by the bank, or redeem the same when presented for payment.

8. This act shall take effect on and after 1st April, 1859.

STATISTICS OF TRADE AND COMMERCE.

STATISTICS OF OHIO.

EDWARD D. MANSFIELD, ESQ., was appointed Commissioner of Statistics for the State of Ohio, by the law of April 17th, 1817. The following is the summary of his first annual report, and it appears to have been executed with great judgment and care. He has presented also a plan for the organization of a permanent bureau of statistics, which it would be well if all the States were to follow. It is the only mode by which the statistics of the whole country can be reliably condensed :—

I. SERIES—PHYSICS.

Surface, (including the Lake.) .....square miles	42,500
Land surface, as stated by the United States Land-office.....	39,964
Land in acres.....acres	25,576,960
Coast line of Lake Erie and the Ohio.....miles	634
Extent of the boundary line.....	974
Longest line on land.....	290
Shortest line on land.....	72
Mean annual temperature.....degrees	52
Average fall of rain and melted snow.....inches	40.14
Highest elevation above the sea .....feet	1,250
Lowest elevation.....	425

II. SERIES—POPULATION.

Population* (estimated by known ratios) July, 1857.....	2,368,000
Increase since 1850.....	388,862
Born in Ohio.....	1,535,000
Born in other States.....	640,000
Born in foreign countries.....	393,000
Population of thirty cities and towns in 1857.....	438,000
Population of the same in 1850.....	255,522
Increase .....per cent	42

III. SERIES—AGRICULTURE.

Land occupied by, or attached to farms.....acres	19,800,000
Land actually cultivated	10,836,000
Land cultivated by the plow.....	5,225,000
Land cultivated in grass.....	4,811,000
Land cultivated in orchards, gardens, and yards.....	800,000
Land occupied in woods, or untilled.....	8,540,000
Number of land owners.....	277,000

* The population and nativities have been calculated from several ratios, furnished by the United States Census and the State Auditor's Report.

Average amount of farm land held by each person.....acres	90.82
Average corn crop.....bushels	67,000,000
Largest corn crop in eight years	87,587,000
Smallest corn crop in eight years	52,171,000
Average production of maize, or corn, per acre	35
Highest average produced in one county	67
Average wheat crop	20,000,000
Largest wheat crop in eight years	31,408,000
Smallest wheat crop in eight years	11,819,110
Average product of wheat per acre	14
Highest average for the State	18
Lowest average for the State	8
Average price of farm labor per year, and board	$150 00
Average price of farm labor per month, "	15 00
Average price of farm labor per day, without board	1 00
Female domestics (per week)	1 00 to 2 00
Fuel—per cord of wood (average)	2 00

Agricultural products.	Quantity.	Value.
Grain, on the average of 1855 and 1856.....bushels	123,000,000	$64,000,000
Hay.....tons	2,000,000	29,000,000
Marketable animals	1,100,000	24,800,000
Increase of animals not marketed	200,000	2,000,000
Products of animals, wool, cheese, and butter..pounds	75,000,000	11,650,000
Poultry and eggs	.....	2,100,000
Tobacco, seeds, and vegetables	.....	2,250,000
Fruit, wine, sugar, and honey	.....	1,900,000
Miscellaneous articles, non-enumerated	.....	2,000,000
Potatoes.....bushels	6,000,000	2,000,000
Wood—Medicinal plants	.....	2,000,000
Aggregate value of agricultural products		$132,700,000
Cost value of lands		$600,000,000
Cost (annual) of farming, including fences, roads, and taxes		75,400,000
Net profits		57,300,000
Rate of net income.....per cent		9½

IV. SERIES—MANUFACTURES.

Grist mills	2,200	Planing mills	175
Saw mills	3,740	Oil mills	70

VALUE OF PRODUCTS.

Of Iron	$20,000,000	Of Agricultural machines...	$1,500,000
Clothing	10,000,000	Leather	3,000,000
Furniture	4,000,000	Animal meats	12,000,000
Carriages and wagons...	1,500,000	Grain	8,000,000
Spirits, beer, and wine...	6,000,000	Wood	1,000,000
Cotton cloths and thread.	1,500,000	Steamboats and vessels..	3,000,000
Wool	1,500,000	Value of mechanical labor, in the trad's (not incl'd above)	40,000,000
Earthen-ware	300,000		
Animal fats	6,000,000		
Aggregate value of manufactures and arts			119,300,000

V. SERIES—MINING.

	Quantity.	Value.
Coal (bushels) mineral	46,100,910	$5,000,000
Iron (tons of pig metal)	106,000	3,171,000
Salt (bushels)	1,450,000	362,500
Lime	.....	200,000
Stone	.....	200,000
Gypsum	.....	50,000
Clay (products of)	.....	500,000
Aggregate value of mining products	.....	$9,483,500

VI. SERIES—COMMERCE AND NAVIGATION.

Vessels built.....	97	Tonnage of vessels built...	29,636

CANALS.

Canals .....miles	849	Tonnage..... tons	1,609,554

TRANSIT LINES.

Turnpikes..... miles	2,400	Cost of railroads	$95,000,000
Common roads.....	66,200	Debt of railroads.....	55,000,000
Railroads	2,834	Aggregate length of transit lines.....miles	73,418

VII. SERIES—PROPERTY, DEBT, AND TAXATION.

Aggregate value of property by assessment.....	$849,414,000	Mortgage debt.....	$77,096,452
		Railroad debt.....	55,000,000
Total taxation.....	8,673,298	Judgment debt.....	7,500,000
Rate of taxation..per cent	1.02	Aggregate debts	282,809,547

VIII. SERIES—SOCIAL STATISTICS.

Marriages.....	24,500	Paupers (whole number, including out-door poor)..	14,145
Ratio to population.....	1 in 96		
Wills filed	1,749	Ratio to population.....	1 in 167
Estates administered upon	3,819		

CANADA WHEAT TRADE.

The following compilation will show the exports of wheat and flour from Canada in 1856 and 1857, according to the trade and navigation returns :—

	Wheat.		Flour.	
	1856.	1857.	1856.	1857.
Rayfield	155,359	80,633	....	...
Cobourg	75,271	....	13,805	6,972
Credit	99,004	73,120	30,018	13,340
Clifton.....	.....	542,534	....	51,655
Dalhousie.....	78,647	131,141	15,684	20,553
Dover	118,399	101,811	15,164	11,157
Dundas.....	85,461	....	9,536	8,806
Dunnville	66,878	....	14,889	....
Hamilton	559,005	227,489	130,806	113,193
Hope.....	127,795	87,540	....	....
London	118,091	59,706	....	....
Montreal.....	448,084	189,182	189,488	155,873
Newcastle.....	96,658	....	....	....
Oakville.....	282,206	77,493	....	....
Quebec	187,183	232,200	83,851	35,505
Stratford.....	.....	49,268	....	....
Stamford.....	189,332	....	60,990	....
Stanley.....	172,553	102,142	....	....
Toronto.....	1,161,545	279,926	33,851	39,725
Whitby.....	379,926	169,037	6,140	....
Woodstock	111,986	....	....	....
Other ports.....	483,037	363,282	184,023	286,874
Total.....	4,997,656	2,762,454	878,775	743,942

DRY GOODS TRADE OF BOSTON AND VICINITY.

A very large proportion of the stocks of goods on hand is composed of goods left over from last year's importations—the value of those imported since October last having fallen off nearly 70 per cent when compared with the imports of the corresponding time of the previous year, as will be seen by the annexed

table. It is evident that, until importations again rally, the retail prices of dry goods will materially advance, with a somewhat limited variety for ladies to select from at that. Our table compares the value of imports of all kinds at this port, and also of dry goods, since the 1st of October last with the corresponding period of the year previous :—

	Total value of imports.		Value of dry goods.	
	1856–7.	1857–8.	1856–7.	1857–8.
October	$2,852,452	$375,787	$2,084,023	$309,794
November	4,573 660	311,383	4,791,892	174,914
December	3,608,688	382,976	3,378,123	165,222
January	2,005,789	856,751	2,175,453	250,554
February	5,041,661	1,559,265	1,389,954	335,169
March	5,175,338	1,591,872	3,122,172	565,505
April	5,120,812	1,469,119	2,275,010	182,749
Total	$28,878,395	$6,538,153	$20,216,627	$1,983,907

EXPORTS TO CALCUTTA.

The following comparative statement of the principal articles exported from the United States, and imported into Calcutta, for the five years ending December 31, 1857, we copy from the late Annual Report of the Boston Board of Trade :—

Articles.	1853.	1854.	1855.	1856.	1857.
Lumber.....feet	367,176	862,649	1,221,000	704,179	865,708
Mahogany	56,101	224,958	274,972	143,222	135,490
Spars.....No.	335	360	1,881	1,453	427
Oars	217	546	2,450	2,882	2,332
Tar.....bbls.	832	1,645	1,057	2,739	2,580
Pitch	755	2,284	1,825	3,865	2,347
Rosin	1,350	2,451	3,865	3,090	6,630
Spirit turpentine.....gals.	4,703	21,174	14,265	24,420	16,371
Crude brimstone.....lbs.	76,736	437,073	1,640,410	307,063	111,825
Roll brimstone	75,386	146,900	86,100	.....	.....
Tobacco	310,477	392,681	276,700	38,508	147,190
Brown drills.....yards	1,989,591	1,272,905	1,223,316	1,527,770	1,522,158
Blue drills	132,963	162,044	12,068	154,111	.....
Bleached drills	54,081	.....	.....	.....	.....
" jeans	68,191	.....	8,319	.....	.....
Brown jeans	510,145	61,636	188,329	333,132	121,175
Sheetings	40,161	.....	111,728	79,980	191,370
Cotton flannels	80,388	35,558	197,111	26,052	32,484
Stripes and checks	2,920	21,508	12,662	15,793	.....
Ticks and demins	12,498	27,037	11,123	.....	.....
Cotton duck	.....	.....	25,192	19,537	10,568
Ice.....tons	2,698	3,936	4,466	4,008	3,459
Clocks.....cases	386	149	232	467	501
Soap .....boxes	224	1,250	3,460	75	1,277
Copper.....lbs.	.....	.....	110,210	.....	50,421

IMPORTATIONS OF RAGS INTO THE UNITED STATES.

The import of rags into this country is large, reaching for the year 1857, 44,582,080 lbs., valued at $1,448,125. A correspondent of the Portsmouth *Journal* gives the following particulars relative to the origin of the rags :—

The importation of foreign rags into the United States for 1857 was 69.461 bales; 35,591 of which were from Italy. but only 1,489 bales of these came from Genoa. Of the rags from Italy, rather more than one-third are *entirely linen* —the balance is a mixture of linen and cotton; and about the same proportion

exists in the rags from Trieste. From Trieste you will notice that only 3,183 bales were received in 1857, while 12,077 bales were imported from Great Britain. About 2,000 bales were also imported from Bremen and Hamburg, both of which are *free* cities.

France strictly prohibits the export of rags, and so does Rome. The few coming from Ancona (a Roman province) being by special permission, on payment of large fees. Prussia and Germany generally impose so high an *export* duty on rags as to stop the trade.

The exports from Alexandria and Smyrna are collected chiefly in Asia Minor; and the collection and sale is confined to only one or two parties, who have the monopoly from the government, subject, however, to the restriction, that all domestic demand must be supplied at a fixed price, before any export is allowed. It is so also with the rags from Trieste, which are collected in Hungary under government restrictions, and only the surplus over the domestic demand can be exported.

Quite a large portion of the rags shipped from Leghorn are collected in Egypt and Barbary, and brought to Leghorn, where they are sorted, packed, and sold for export to the United States or elsewhere.

IMPORTS OF RAGS INTO THE FOLLOWING PORTS IN 1857.

INTO NEW YORK.

From Leghorn, Italy	18,021
Genoa, "	941
Alexandria	6,360
Smyrna	4,403
Trieste	3,183
Ancona, Italy	201
Venice, "	330
Palermo	2,603
Messina	1,356
Bremen	170
Hamburg	1,749
Glasgow	1,329
Liverpool and London	6,405
Malta	243
Havana	1,174
West Indies	623
Coastwise	8,317
	57,408

INTO BOSTON.

From Leghorn	3,767
Genoa	243
Smyrna	2,611
Malta	213
Malaga	446
Palermo	1,968
Messina	2,160
Great Britain	3,947
Caldera	164
West Indies	83
	15,602

INTO PHILADELPHIA.

From Leghorn	1,648
Genoa	300
Palermo	1,077
Messina	425
Great Britain	266
West Indies	34
Havana	389
	4,139

INTO BALTIMORE.

From Leghorn	140
Palermo	180
Messina	149
Great Britain	130
West Indies	30
	629

FISHERIES OF MASSACHUSETTS.

The following is a summary of the number of vessels, capital, and persons, etc., employed in the cod and mackerel fisheries from Massachusetts ports:—

Schooners employed in fisheries	325	Tons of halibut smoked	200
Tonnage of the same	24,500	Fresh halibut sold, qtls.	20,000
Bbls. of mackerel, 68,000; value	$560,000	Bushels of salt used	300,000
Quint. of codfish, 125,000; "	375,000	Capital invested	$1,200,000
Barrels of oil	750	Men employed	3,250

COMMERCIAL REGULATIONS.

BLANK COPYING BOOKS.

TREASURY DEPARTMENT, March 1, 1858.

SIR :—I acknowledge the receipt of your report, under date 2d instant, and accompanying papers, in regard to the appeal of Mr. Richard Mosely from your decision as to the rate of duty to be assessed upon certain articles of merchandise imported by him in the steamship "Niagara," from Liverpool, and invoiced as "copying books." The books in question, as imported, are composed of blank leaves, and are intended and used solely for the preservation of copies of writing transferred to them by means of a press. It appears from your report that you assessed duty on the articles in question at the rate of 24 per cent, under the classification in schedule C of the tariff of 1857 of "manufactures of paper, or of which paper is a component material, not otherwise provided for," not regarding them, as claimed by the appellant, as falling within the classification of "blank books, bound or unbound," in schedule E, the terms of which you think applicable only to "volumes of blank paper intended for any species of writing, as for memoranda, for accounts or receipts." The books in question, in the opinion of the Department, should be regarded as embraced in the classification of "blank books, bound or unbound," in schedule E of the tariff of 1857, and subjected to the duty, at the rate of 15 per cent, imposed on the articles designated in that schedule. That the books in question are "blank" is admitted, and it must, it would seem, be also conceded that they cannot be discriminated by any well-defined line of distinction from what are known as "blank books" in common parlance. A difference in the classification and rate of duty ought not, in the opinion of the Department, be made to depend upon the fact that the writing is to be transferred to the volume by a press instead of a pen. The decision is therefore overruled, and the articles in question are entitled to entry as "blank books, bound or unbound," under schedule E of the tariff of 1857, at a duty of 15 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector of the Customs, Boston, Mass.

HEMP CARPETING.

TREASURY DEPARTMENT, March 1, 1858.

SIR :—Messrs. Wyman and Acklay have appealed to this Department from the decision of the collector at Boston, assessing duty on an article invoiced as "Dutch carpeting" at the rate of 24 per cent, under the classification in schedule C of the tariff of 1857, of "carpets, carpeting, hearth rugs, bed sides, and other portions of carpeting, being either Arbusson, Brussels, Ingrain, Saxony, Turkey, Venitian, Wilton, or any other similar fabric." The appellants contend that the article in question, being manufactured of hemp, should be charged with duty at the rate of 15 per cent, under the classification in schedule E of the tariff of 1857, of "manufactures of hemp, not otherwise provided for." "Dutch carpeting" is a fabric differing from some one or more of the descriptions of carpets specially named in schedule C only in the material of which it is composed, the former being of hemp and the latter of wool; and the question is presented, whether carpeting composed of hemp can be regarded as a fabric "*similar*" to the enumerated varieties, within the meaning of the law. The Department is of opinion that that term has reference as well to the material of which the fabric is composed, as to the mode of manufacture or the use for which it is designed, and that the article in question should be charged with duty at the rate of 15 per cent, under the classification in schedule E of "manufactures of hemp, not otherwise provided for." The decision of the collector is therefore overruled. Very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Mass.

CAUSTIC SODA.

TREASURY DEPARTMENT, March 2, 1858.

SIR :—The Department has had under consideration an appeal by Messrs. Pickering, Winslow & Co., from the decision of the collector at Boston, as to the rate of duty to be assessed on an article imported by them in the ship "W. F. Stover," from Liverpool, and described in the invoice as "caustic soda." The collector assessed duty on the article in question at the rate of 15 per cent, in pursuance of the provisions of the 1st section of the tariff act of 3d March, 1857, it not being enumerated in any schedule of that tariff. The appellants concede that "caustic soda" is an unenumerated article, but they claim its entry at the rate of 4 per cent, the duty imposed on "soda ash," designated in schedule H of the tariff of 1857, by applying the provisions of the 20th section of the tariff act of 1842, it being assimilated, in their opinion, by the uses to which it is applied, to "soda ash," and by force of that provision should be subjected to duty at the same rate. The tariff act of 1857 prescribes expressly the rates of duty to be levied on soda in several of its forms and combinations—"carbonate of soda," "nitrate of soda, refined or partially refined," and "natron" or "mineral soda," in schedule G, and "soda ash" and "nitrate of soda, crude," in schedule H. "Caustic soda" is not specified in any schedule of the tariff under that name, nor is it embraced in any of the combinations or forms of soda expressly designated in that act. The appellants allege that "caustic soda" is applied to the same uses as "soda ash," and ought, as an unenumerated article, by force of the provisions of the 20th section of the tariff act of 1842, to be subject to the duty specially imposed on the latter. It is represented that "caustic soda" and "soda ash" are both used in the manufacture of soaps and for bleaching purposes; but "soda ash," it is understood, is not applicable to those purposes until it has been converted into "caustic soda." "Soda ash," therefore, in the condition in which it is imported and known in commerce, and to which, under that designation, the law imposing the duty upon it must be presumed to have reference, is not applicable to the uses to which the article imported and known in commerce as "caustic soda" is applied, and cannot, therefore, be brought under the same duty by force of the provisions of the 20th section of the act of 1842, by reason of a similitude in the uses to which they may be applied. The decision of the collector assessing duty on the article in question at 15 per cent, as unenumerated, in pursuance of the provisions of the 1st section of the tariff act of 3d March, 1857, is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Mass.

CHLORURE D'OXIDE DE SODIUM.

TREASURY DEPARTMENT, March 8, 1858.

SIR :—The Department has had under consideration appeals of Messrs. Carnes and Haskell, and Edward Gaudelet, from the decision of the collector at New York, assessing a duty of 24 per cent on an article known as "chlorure d'oxide de sodium," or "liqueur disinfectante de labarraque," as a "medicinal preparation, not otherwise provided for," in schedule C of the tariff of 1857. The applicants contend that the article in question is not a medicinal but a chemical preparation, used chiefly as a disinfecting agent, and claim to enter it as an unenumerated article dutiable under the 1st section of the tariff act of 3d March, 1857, at the rate of 15 per cent. The article in question is no doubt susceptible of a medicinal use, but not to an extent that would authorize it to be treated as embraced within the classification of "medicinal preparations" in schedule C of the tariff of 1857. It is a chemical preparation not specially named nor embraced in any general designation in any schedule of the tariff of 1857. As an unenumerated article it is chargeable with duty at the rate of 15 per cent, under the 1st section of the tariff act of the 3d March, 1857. It cannot be placed, as an unenumerated article, in any schedule of the tariff, by assimilation to any designated article, by force of the 20th section of the tariff act of 1842. Chloride of lime, which it resembles in its quality as a disinfectant, is used principally in

the arts, and is enumerated in schedule H of the tariff as "bleaching powder or chloride of lime," a use to which there is no allegation that the "chlorure d'oxide de sodium" is applied. The decision of the collector is therefore overruled, and the article in question is entitled to entry as an unenumerated article at a duty of 15 per cent. Very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector of the Customs, New York.

GENEVA ENAMELED PAINTING.

TREASURY DEPARTMENT, March 3, 1858.

SIR:—I acknowledge the receipt of your report under date of the 19th of January last, in regard to the appeal of Messrs. Mulford, Wendell & Co., from your decision charging a duty of 24 per cent on an article called a "Geneva enameled painting," as embraced either in the classification of schedule C of "manufactures, articles, vessels, and wares, not otherwise provided for, of brass, copper, gold, iron, lead, pewter, platina, silver, tin, or other metals, or of which either of those metals, or any other metal, shall be the component material of chief value," or in that of "jewelry, real or imitation," in the same schedule; the importers claiming to enter it free of duty under the classification in schedule I of "paintings and statuary." The article, in the form in which it is imported, is not a brooch, breastpin, or other personal ornament, or fitted for such, without further manufacture. It is merely an enameled painting on a metallic base, to be converted by further manufacture into ornaments for the person. In that view, it cannot be regarded as in the classification of schedule C of the tariff of 1857, of manufactures of metal or jewelry. Nor can it be held to be a "painting on glass," specified in that schedule. The paintings under consideration are on an article not known in commerce as glass, and are exclusively used in the manufacture of personal ornaments, while "paintings on glass" are paintings executed in the ordinary mode on common plate or sheet glass and used for shades, windows, and other like purposes. Nor can the article in question be entered free of duty, as the importers claim, under the classification of "paintings and statuary" in schedule I of the tariff of 1857. "Paintings," as defined under the tariff of 1846, are works known as objects of taste, not intended as merchandise. The act of 1857 merely relieves them from that restriction, admitting them to free entry for whatever purpose imported. Thus defined, they are clearly distinguishable from the articles in question, which are intended not as mere objects of taste but as personal ornaments, and are not known commercially or otherwise as "paintings." Your decision is therefore overruled, and the articles in question are entitled to entry at a duty of 15 per cent, under the provisions of the first section of the tariff act approved March 3, 1857. Very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector of the Customs, New York.

MARROW FOR TOILET SOAP.

TREASURY DEPARTMENT, March 3, 1858.

SIR:—A question as to the rate of duty chargeable, under the tariff act of 1857, on an article described in the invoice as "marrow for toilet soap," has been brought by appeal before this Department from the decision of the collector at New York, by Messrs. R. & G. A. Wright, of Philadelphia, the importers. It is claimed by the importers that the article is entitled to entry at the rate of 8 per cent, under the classification "tallow, marrow, and all other grease and soap stock and soap stuffs, not otherwise provided for," the collector assessing duty at the rate of 24 per cent, under the classification in schedule C of "balsams, cosmetics, essences, extracts, pastes, perfumes, and tinctures, used either for the toilet or for medicinal purposes." The collector was, in the opinion of this Department, clearly right in assigning this article to the above named classification in schedule C, and in assessing the duty at 24 per cent. The article is not imported in its natural condition, but has been highly perfumed, and, perhaps by other process also, fitted for the use of the toilet, and does not differ, it is believed, in any essential respect, from an article sold in the

shops as a *pommade*. Being thus provided for in schedule C, it must be held to be excluded from the classification of "tallow, marrow, grease, soap stock, and soap stuffs, not otherwise provided for" in schedule G, although it may be used also to some extent in the preparation of toilet soaps. The decision of the collector is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

ROOFING FELT.

TREASURY DEPARTMENT, April 1, 1858.

The Department has had under consideration an appeal of Messrs. Edmiston Brothers from the decision of the collector at New York assessing duty at the rate of 15 per cent as unenumerated in the tariff act of March 3, 1857, on an article invoiced and known in the trade as "roofing felt," the importers claiming to enter it free of duty as "sheathing felt." The article in question is understood to be composed of several materials, and is known in commerce under the distinctive designation of "roofing felt." It cannot be regarded in any just sense as identical with the article described in schedule I of the tariff of 1857, as "felt, adhesive, for sheathing vessels." The fact that it is intended and used for another purpose, is a decisive objection to the claim of the importers. The law exempts from duty "felt, adhesive, for *sheathing vessels*," and not "felt, adhesive," for roofing purposes. The article in question must be regarded as unenumerated in the tariff of 1857, and as such is subject to a duty at the rate of 15 per cent, under the 1st section of that act. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

TO COLLECTORS OF CUSTOMS.

SULPHATE OF AMMONIA.

TREASURY DEPARTMENT, April 2, 1858.

Messrs. Rosengarten & Sons, of Philadelphia, have appealed to this Department from the decision of the collector at that port assessing duty at the rate of 15 per cent on an article imported by them, and known in commerce as the "sulphate of ammonia." The collector assessed duty on the article in question as a chemical salt, under the classification in schedule E of the tariff act of 1857, of "salts, Epsom, Glauber, Rochelle, and all other salts, and preparations of salts, not otherwise provided for." The importers claim entry of the article in question at the rate of 8 per cent, as a crude ammonia, under schedule G of the tariff of 1857. The only provisions of schedule G affecting ammonia, or any of its combinations, are the designations "ammonia" and "sal-ammonia." The latter is the "muriate or chlorate of ammonia," and the courts of the United States have decided that the "carbonate of ammonia" is the "ammonia" of commerce, and the Department has acquiesced in that decision. so that the "sulphate of ammonia" does not come within any classification in schedule G, as claimed by the importers. The sulphate of ammonia was decided by the Department to be embraced in schedule E of the tariff of 1846, as a "preparation of salts." The tariff of 1857 makes no change in that classification. The duty of 15 per cent was, in the opinion of this Department, rightfully exacted under the classification in schedule E, to which the article was assigned by the collector. The decision of the collector is therefore affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

TO COLLECTORS OF CUSTOMS.

COCOA MATTING.

TREASURY DEPARTMENT, April 3, 1858.

SIR :—The Department has had under consideration the appeal of Messrs. Samuel Price & Co., of San Francisco, from the decision of the collector at that port assessing a duty of 19 per cent on an importation of "cocoa matting," under the classification in schedule D of "matting, China, and other floor matting and mats, made of flags, jute, or grass," the importers claiming to enter the article

as unenumerated at a duty of 15 per cent. It being understood that the article in question is a manufacture of the fibers of the outer covering of cocoa-nut shell, unmixed with other material, it cannot fall within the classification in schedule D, to which it was referred by the collector, but must be treated as unenumerated, and subject, under the 1st section of the tariff act of March 3, 1857, to duty at the rate of 15 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

To BENJ. F. WASHINGTON, Esq., Collector of the Customs, San Francisco, California.

GUITAR STRINGS.

TREASURY DEPARTMENT, April 5, 1858.

SIR:—This Department has had under consideration the appeal of W. Boucher, Jr., from the decision of the collector at Baltimore as to the rate of duty chargeable on an article invoiced as "guitar strings," and entered on the 23d of November last. The article in question is composed of metal and silk. The collector is of opinion that it is chargeable with duty at the rate of 24 per cent, under the classification in schedule C of the tariff of 1857, of "manufactures, articles, vessels, and wares, not otherwise provided for, of brass, copper, gold, iron, lead, pewter, platina, silver, tin, or other metal, or of which either of those metals, or any other metal, shall be the component material of chief value." The applicant claims entry at a duty of 15 per cent, under the classification in schedule E of the tariff of 1857, of "musical instruments of all kinds, and strings for musical instruments, of whip gut or cat gut, and all other strings of the same material." The article in question not being composed of whip gut or cat gut, cannot of course fall within that classification in schedule E, but being composed of metal and silk, the metal being the component material of chief value, it is liable to duty at the rate of 24 per cent, under the classification in schedule C, to which it is referred by the collector, whose decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

JOHN THOMSON MASON, Esq., Collector, Baltimore, Md.

PULU.

TREASURY DEPARTMENT, April 5, 1858.

SIR:—I acknowledge the receipt of your report of the 4th December last, and accompanying papers, in regard to the appeal of Thos. E. Lindenberger from your decision, assessing a duty of 15 per cent on an article called "pulu," imported from Honolulu. The article in question is prepared from the fibers of a plant found on the Hawaiian Islands, and is principally, if not exclusively, used for beds, mattresses, and cushions. Not being specially named in any sched- of the tariff of 1857, the collector levied duty upon it at the rate of 15 per cent, under the classification of "hair, curled, moss, seaweed, and all other vegetable substances used for beds or mattresses" in schedule E of that tariff. The importer claims a free entry of the article under schedule I, alleging that it is applied to the same uses as "cotton," which is placed in that schedule, and to which he assimilates it by force of the 20th section of the tariff act of 1842. The provision of the 20th section of the tariff act of 1842, classifying unenumerated articles by similitude to articles enumerated, being applicable only to dutiable articles, does not authorize the transfer of non-enumerated articles to the free list. The Department concurs in opinion with the collector in this case, and his decision in confirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

B. F. WASHINGTON, Esq., Collector, San Francisco, Cal.

PAPER STOCK.

TREASURY DEPARTMENT, April 6, 1858.

SIR:—I acknowledge the receipt of your report, under date of the 2d instant, and accompanying papers, in relation to the appeal of Mr. R. B. Storer from your decision assessing duty on an article imported in the ship "Augustus," from

Archangle, Russia, described as rags or "white rope," a manufacture of hemp reduced to pulp, and intended for the manufacture of paper. The claim of the importer to enter the article as exempt from duty under the classification of "rags of whatever material composed, except wool," or as "old junk," in schedule "I," is clearly inadmissible. The original material, whatever it may have been, has been subjected to a process of manufacture which has changed its character. Nor does it appear to the Department that it should be classified as a "manufacture of paper" by force of the 20th section of the tariff act of 1842, not having been sufficiently advanced in manufacture to be regarded as a "paper" in the language of the trade, nor is it believed to be applicable, without further manufacture, to the uses to which any of the manufactures of paper are applied. The article in question not being specially designated, nor embraced in any general classification in any schedule of the tariff of 1857, must be regarded as unenumerated, and liable, under the 1st section of that act, to a duty of 15 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq, Collector, Boston, Mass.

VEGETABLE OIL, ETC.

TREASURY DEPARTMENT, April 21, 1858.

SIR:—Messrs. Edwards & Bailey, of San Francisco, California, have appealed from the decision of the collector at that port as to the rate of duty to be imposed, under the tariff act of 1857, on an article described as a "vegetable oil, used for burning, and supposed to be made of tea leaves." The collector assessed duty at the rate of 24 per cent, under the classification in schedule C of the tariff of 1857, of "oils, volatile, essential or expressed, and not otherwise provided for." The appellants claim entry at the rate of 15 per cent as an unenumerated article, by force of the provisions of the 1st section of the tariff act of March 3, 1857. Oil of this description is not specially named in any schedule of the tariff of 1857, but is embraced under the general classification in schedule C to which it has been referred by the collector, whose decision, imposing a duty of 24 per cent, under that schedule, is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

B. F. WASHINGTON, Esq., Collector, San Francisco, Cal.

CANARY SEED.

TREASURY DEPARTMENT, April 21, 1858.

SIR:—I have examined your report, under date of the 22d ultimo. and accompanying papers, on the appeal of Messrs. Hosmer & Sprague from your decision assessing duty on an importation of "canary seed," in the brig "Pico," from Gibraltar, at the rate of 15 per cent, under the 1st section of the tariff act of 3d March, 1857, the importers claiming entry free of duty under schedule I of that act. The article in question is not specially named in any schedule of the tariff of 1857. In schedule I of the tariff of 1846. the classification of "garden seeds and all other seeds, not otherwise provided for," was held to embrace "canary seeds;" but the provision for seeds in schedule I of the tariff of 1857 is materially different, and confines the exemption from duty to the "garden seeds and all other seeds for agricultural, horticultural, medicinal, and manufacturing purposes, not otherwise provided for." Seeds, therefore, not used for some one of the purposes thus specified, are liable to duty. "Canary seeds," it is understood, are used to a very limited extent, if at all, for agricultural, horticultural, medicinal, or manufacturing purposes." They are used as food for birds. They cannot, therefore, be held to be free of duty under the tariff act of 1857; and being unenumerated, were properly charged by you with duty at the rate of 15 per cent, under the 1st section of that act. Very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector of the Customs, Boston, Mass.

NAUTICAL INTELLIGENCE.

NEW LIGHTHOUSE ON BASS HARBOR HEAD, MAINE.

A new lighthouse is now in course of construction on Bass Harbor Head, the eastern side of the entrance to Bass Harbor, Mount Desert Island, Maine. The tower is cylindrical, built of brick, is 21 feet high, will be painted white, and the lantern will be painted black. The dwelling house will be of wood, and with the walk connecting it with the work-room of the tower will be painted brown. The illuminating apparatus will be a catadioptric lens of the 5th order of the system of Fresnel, showing a fixed red light. The focal plane will be 26 feet above the ground, and 56 feet above the level of the sea, and the light should be seen in ordinary states of the atmosphere, from the deck of a vessel, 13 nautical miles. The approximate position as given by the best authorities that can be obtained is—Latitude, 44° 14′ 30″ north; longitude, 68° 23′ 10″ west of Greenwhich. The following magnetic bearings and distances have been taken from the lighthouse:—York's Narrows, W. ¼ S., 7 miles; Little Duck Island, S. E. ¼ S., 5 miles; Long Ledge Buoy, E. by S., 3 miles; Edgemoggin Lighthouse, N. W. ¼ W., 10 miles. The light will be lighted for the first time at sunset on Wednesday, the 1st of September next, and will be kept burning during every night thereafter from sunset to sunrise. By order of the Lighthouse Board,

W. B. FRANKLIN, Secretary.

WASHINGTON, May 20, 1858.

CARYSFORT REEF—DRY BANK AND SAND KEY LIGHTHOUSES.

It having been represented to this office that mariners navigating the Elorida Pass from Sand Key to Cape Elorida are frequently at a loss, during daylight, to determine whether they are on the Bahama or Elorida reefs side, with the view to obviate that difficulty as far as possible, orders have been issued to the keepers of the Sand Key, Dry Bank, (off Sombrero Key,) and Carysfort Reef lighthouses to hoist an American flag from a flagstaff above the lantern at each of these lighthouses on and after the 1st day of July next, (1858,) and keep it hoisted every day thereafter from sunrise to sunset. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 15, 1858.

LIGHT-VESSEL IN ST. IVES BAY—ENGLAND, WEST COAST.

Official information has been received at this office, that the Corporation of the Trinity House of London have given notice that a light-vessel has been moored about midway in the channel or sound between Godrevy Island and the rocks called the Stones, leading into St. Ives Bay, on the western coast of Cornwall. The light is a white revolving light, showing a bright face or flash every 15 seconds, and will be exhibited all night until further notice. The vessel lies in 9 fathoms depth of water, with the summit of Godrevy Island bearing S. by W., St. Ives pierhead light, W. by S., and the northeastern extremity of the Stones, N. N. W. ¼ W. CAUTION.—Mariners are cautioned that, this light-vessel, being placed in the channel to the southward of the Stones, ships passing outside of these rocks are not to approach within 1¼ mile of her.

BLACK BUOY OFF THE STONES.

Also, that a black buoy has been placed to the northward of the Stones, in 8 fathoms water, with Gwythian church in line with the tide rock or southernmost stone; Lelant church in line with Hevah rock, S. S. W. ¼ W., and Lethegga rock on the main shore in line with the northernmost stone, S. E. The bearings are magnetic. Variation 24° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

NEEDLES LIGHTHOUSE, ISLE OF WIGHT.

Official information has been received at this office that the tower in course of erection on one of the Outer Needles Rocks, being in a state of forwardness, the light will be exhibited therefrom on or about the 1st January, 1859, when the light at present shown from the tower on the cliff will be discontinued. The light will burn at an elevation of 80 feet above the level of high water, and will appear as a fixed red light, from S. E. ½ S. round westward to N. E. by E ½ E., excepting between the following points, viz:—W. ½ N. and N. W. by W. ½ W., in which direction it will appear as a fixed white light. Mariners are to observe, that the white light will be shown in the direction above defined, for the purpose of clearing two miles to the southward of Durlestone Head in 14 fathoms; and also of clearing the Dolphin Bank and S. W. Shingles in 4 and 5 fathoms respectively. All the above bearings are by compass. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 19, 1858.

BUOYS IN THE RIVER TAY—SCOTLAND, EAST COAST.

Official information has been received at this office, that the Corporation of the Fraternity of Masters and Seamen in Dundee have given notice, that in adopting a general system in coloring the buoys under their direction,—by which arrangement vessels entering a harbor should keep red buoys on the starboard hand, and black buoys on the port hand, while chequered buoys indicate center dangers,—the following changes in the colors of the undermentioned buoys in the river Tay will be made on or about the 15th of July, 1858:—Fairway buoy, from black to red and black, horizontally, with Tay Fairway painted on it in white letters. New Shoal buoy, from green to red, with New Shoal in black letters. Gaa Sand buoys, numbers 1, 2, 3, 4, from black and white, chequered, to red, the numbers to be painted in black. Lady buoy, from black and white, chequered, to red. Horseshoe buoy, from black and white, chequered, to red. Abertay Sand buoys, numbers 1, 2, 3, 4, 5, 6, from red to black, the figures to be in white. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

CHANGE IN POSITION OF SURINAM LIGHT-VESSEL.

WEST INDIES, COAST OF GUIANA.

With reference to the notice to mariners issued from this office, dated April 14, 1858, the Colonial Government of Dutch Guiana has given notice, that it has been found necessary to move the light-vessel recently placed at the entrance of the river Surinam farther out, north, 4 English miles; and she now lies in 4 fathoms at low water, with Bram Point bearing S. S. E. ½ E., distant 9 miles. Eastern extreme of land, E. S. E. ½ E. Outer buoy, south, westerly. Approaching from the eastward in 4 fathoms along the coast, in clear weather, the light will be seen; but in coming from the northward, soundings of 4 fathoms will be obtained for some time before sighting it. These bearings are magnetic. Variation 1° 45′ E. in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

EDDYSTONE LIGHTHOUSE—ENGLAND, SOUTH COAST.

Official information has been received at this office, that the Corporation of the Trinity House in London has given notice, that with the object of rendering the Eddystone lighthouse more distinctly visible during the daytime, the tower is about to be colored red and white in alternate horizontal bands. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

BASS STRAIT, AUSTRALIA.

FLASHING LIGHT ON CAPE SCHANCK.

Official information has been received at this office, that a lighthouse is in course of erection on Cape Schanck, the southern extremity of the peninsula separating Port Phillip from Port Western, on the south coast of Australia. The light will be a fixed white light, varied by short eclipses, placed at an elevation of 328 feet above the sea, and should be visible in clear weather at a distance of 23 miles. The light will probably be exhibited early in the year 1859; of which due notice will be given.

FIXED LIGHT ON WILSON PROMONTORY.

Also, that a light will be established on Wilson Promontory, the southernmost point of the Australian continent, Bass Strait. This light will be fixed, white, placed at 324 feet above the level of the sea, and should be visible from a distance of about 20 miles in clear weather. It will probably be exhibited early in the year 1859; of which due notice will be given.

ROCK OFF CURTIS ISLAND.

The English vessel Clarendon, on the 2d of December, 1857, whilst in a heavy sea off the coast of Curtis Island, Bass Strait, at half tide, struck on a sunken rock, from which the highest part of Curtis Island bore W. by S., and the inner Sugar Loaf rock, S. W. by S., distant 3 miles. No soundings were taken, but it is said that the rock was seen, and supposed to be about 15 yards in circumference, with 10 feet water over it.

CAPE FRANKLAND ROCK, FLINDERS ISLAND.

Captain Denham, of H. M. surveying vessel Herald, has reported that the rock hitherto placed in the Admiralty Charts at 2 miles to the westward of Cape Frankland, on the northwest side of Flinders Island, at the eastern entrance of Bass Strait, is found to be upwards of 4 miles in the same direction from the cape. The rock, which is awash at half tide, and shows 5 feet above low water, lies in latitude 39° 52′ 2″ S., longitude 147° 41′ 11″ east of Greenwhich, with Cape Frankland, E. by N. easterly 4¼ miles, and the hill (513 feet) on the north part of Hummock Island, S. E. ¼ S., nearly 11 miles. It is about 10 yards in diameter, steep-to on the seaward side, but having a projection to the eastward for nearly one-third of a mile, with 5 and 6 fathoms over it, from the extremity of which the weed rises to within 2 fathoms of the surface. Sister Islands apparently open a sail's breadth of Flinders Island, bearing N. E., lead outside the rock; and Chappell Island mount, its breadth open of Hummock Island, S. E. by S., leads through the fairway between the rock and Cape Frankland. All bearings magnetic. Varation 10° E. in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

FIXED LIGHTS IN KING GEORGE SOUND—AUSTRALIA, SOUTH COAST.

Official information has been received at this office, that since the 1st of Jan., 1858, a light has been established on Breaksea Island, at the entrance of King George Sound, on the south coast of Western Australia. The light is a fixed white light, placed at an elevation of 384 feet above the sea at high water, illuminating all round the compass, and visible in clear weather from a distance of 25 miles seaward between Bald Head and Cape Vancouver, the foot of Mount Gardner, or the bearings E. by N. and S. W. ¼ W. The illuminating apparatus is dioptric, or by lenses, of the third order. The light-tower is of iron, rising from the center of the keeper's dwelling, and the whole 43 feet high. It stands on the summit of the island, 1,200 yards within its eastern extremity, in latitude 35° 4′ 18″ S.; longitude 118° 3′ 20″ east of Greenwhich. When approaching King George Sound from the westward, the mariner is cautioned that although

the light may be occasionally seen, it does not become fairly open until bearing N. E. ¼ N.; and it should not be steered for until bearing N. N. E. ¼ E., when the vessel will be to the eastward of the Maude and Vancouver reefs. The light also will be hidden to a vessel passing north of Michaelmas Island.

FIXED LIGHT AT PRINCESS ROYAL HARBOR.

Also, that from the same date a harbor light has been exhibited from Point King, the northern bluff of the narrow entrance to Princess Royal Harbor, King George Sound. This light is fixed, white, 37 feet above high water, and should be visible in clear weather. through the approaches to the harbor, from a distance of 10 miles. The illuminating apparatus is of the fifth order. The lighthouse is a small wooden square tower, 17 feet high, with the keeper's dwelling attached, and presents the appearance of a cottage. It stands on the edge of the point, W. N. W. ¼ W., 7¼ miles from Breaksea Island lighthouse, and in latitude 35° 2′ 35″ S.. longitude 117° 55′ 12″ east of Greenwhich. All bearings are magnetic. Varation 5½° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

FIXED LIGHT WITH FLASHES ON CAPE BUSTO—ATLANTIC, COAST OF SPAIN.

Official information has been received at this office, that the Minister of Marine at Madrid has given notice, that on and after the 1st of April, 1858, a light would be exhibited from a lighthouse on Cape Busto, Bay of Biscay, in the province of Oviedo, Asturias. The light is a fixed white light, varied by red flashes every 2 minutes, placed at an elevation of 311 English feet above the level of the sea, and should be visible in clear weather from a distance of 12 miles. The illuminating apparatus is dioptric, or by lenses, of the third order. The lighthouse consists of a rectangular building, with a decagon tower rising from the center, and the whole is colored white. It stands on the extreme point of the cape, in latitude 43° 36′ 10″ N., longitude 6° 28′ 48″ east of Greenwhich, according to the latest Spanish position given.

SHOAL IN AROSA BAY.

Also, that a shoal has been discovered off Barbafeita Point, on the island of Arosa, in Arosa Bay, Finisterre. The shoal, which is about 20 yards in diameter, with an irregular surface, and a least depth of 12 feet upon it at low water springs, lies with Barbafeita Point S. by E. easterly, 3 cables' lengths; Campelo Point E. by S., and the outermost point of Pedregosa Island, S. by W. It is steep-to on the outside, and there are 4¼ and 5 fathoms between it and Barbafeita Point. The bearings are magnetic. Variation 23° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

FIXED RED LIGHT ON FORMICHE ISLET—MEDITERRANEAN, SICILY.

Official information has been received at this office that the Sicilian governmens has given notice that on and after the 1st of March, 1858. a light will be exhibited from the northeast point of the tower on the larger of the two Formiche Islets, off Trapani, west coast of Sicily.

The light will be a fixed red light, placed at an elevation of 85 feet above the sea, and should be visible in clear weather at a distance of 10 miles. The light-tower stands in latitude 38° 00′ 46″ N., longtude 12° 29′ 00″ E. of Greenwich.

By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON CITY, March 3, 1858.

JOURNAL OF INSURANCE.

MUTUAL MARINE INSURANCE COMPANIES IN THE CITY OF NEW YORK.

Name of Company.	Assets.	Premiums received in last financial year.	Premiums not marked off in previous year.	Premiums marked off in the last year.	Losses paid and adjusted in the last year.	Commiss'ns, returned prems, re-insurance & expenses.
Atlantic Mutual *a*	$4,071,304	$3,682,583	$1,438,889	$3,942,812	$2,616,988	$522,111
Commer. "	719,256	760,127	215,012	749,224	*530,096	118,186
Mercantile " *b.*	931,150	769,679	297,074	822,099	365,955	108,333
New York " *c.*	978,408	1,088,526	372,608	1,113,186	1,090,477	262,782
Ocean " *d.*	536,617	137,843	40,174	143,480	95,005	53,662
" fire prem's.	.....	21,452	.....	.....	639	
Orient Mutual *e.*	1,144,793	661,231	302,001	786,743	389,733	214,833
Pacific " *f.*	670,442	743,102	148,310	794,169	457,180	174,771
Sun " *g.*	1,730,794	1,383,070	335,086	1,403,305	1,007,344	230,245
Union " *h.*	1,271,886	587,078	304,944	672,162	336,347	178,339
" fire prem's.	.....	66,969	.....	.....	3,734	
	12,054,600	9,851,660	3,454,098	10,427,180	6,893,493	1,863,217

Name of Company.	Interest of dividends and scrip declared for 1857.	Amount of Adv. and prm. notes and bills receivable in assets.	Period of close of financial year.
Atlantic Mutual *a.*	6 per ct. int. and 30 per ct. scrip.	$1,952,358	Dec. 31, 1857
Commer. " .	6 " " 10 " "	607,320	June 30, 1857
Mercantile " *b.*	7 per cent per annum, 7½ per cent cash, and 14 per cent scrip...	512,803	Dec. 31, 1857
New York " *c.*	None.....	856,872	Mar. 15, 1857
Ocean " *d.* fire prem's..	None	163,457	Dec. 31, 1857
Orient Mutual *e* ..	5 per ct. int. and 16 per ct. scrip.	341,555	Feb. 27, 1858
Pacific " *f*...	6 " " 20 " "	471,975	Dec. 31, 1857
Sun " *g*...	6 " " 12 " "	799,283	Oct. 4, 1857
Union " *h*... fire prem's..	6 " " 15 " "	523,378	Dec. 31, 1857
		$6,229,001	

Since our last synopsis of marine companies was published, the following named companies have gone into liquidation, viz. :—Atlas Mutual, Astor Mutual, Globe Mutual, and International Fire and Marine; and a new company has been established, namely, the Columbian, which commenced in 1857.

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a After receiving $1,700,000 of profits, the company pays off 50 per cent of certificates of 1856. Total profits for 15½ years, $7,657,420, of which $5,464,190 paid off in cash.

b The dividends of 7 per cent per annum and 7½ per cent, were payable in cash on February 5th, 1858.

c This statement embraces only about three months of 1857; the time for closing the present year was extended to July 1st, and the scrip was recalled to be roduced 70 per cent.

d Net earned premium was $24,828, which was reserved and no dividend made.

e. Profit of the year was $161,215 24, being 23½ per cent.

f Net profits were $152,216 75.

g All the unredeemed scrip of 1851 paid in cash, and $78,219 added to reserved capital, which, thereby, exceeds $1,200,000.

h Seven-and-a-half per cent on premium notes reserved as a fund to meet losses on same. Net profits were $158,740 19.

* This amount includes expenses.

LONGEVITY OF PERSONS ENGAGED IN DIFFERENT OCCUPATIONS.

The annexed statement, prepared by order of the Legislature of Massachusetts, may be serviceable to life insurance companies, as showing the mean average of life attained by individuals engaged in various employments :—

Agriculturists	63.93	Manufacturers	43.23
Bankers	43.45	Masons	47.78
Bank officers	68.76	Mechanics	43.45
Blacksmiths	51.44	Merchants	51.71
Butchers	50.00	Musicians	39.86
Calico printers	51.33	Operatives	32.93
Carpenters	49.39	Painters	42.68
Clerks	34.32	Physicians	54.94
Clergymen	56.72	Printers	38.01
Coopers	58.37	Public officers	56.84
Editors	40.00	Rope makers	54.50
Gentlemen	58.19	Shipwrights	55.27
Hatters	54.17	Shoemakers	43.12
Jewelers	44.08	Tailors	44.35
Judges and justices	65.00	Teachers	34.46
Lawyers	54.43	Traders	46.35
Machinists	36.41		

THE CHANCES OF LIFE.

Some curious statistics, in relation to life and its chances, were given in a paper that was some time since read by Dr. Barton, of New Orleans, before the American Medical Association. Among the results stated, were the following, showing the comparative mortality in eight of the cities of the New World :—

Boston	1 death in	48.87	persons.
Philadelphia	1	"	48.92	"
Charleston	1	"	48.80	"
Havana	1	"	35.87	"
Baltimore	1	"	29.87	"
New York	1	"	27.83	"
Mexico	1	"	27.89	"
New Orleans	1	"	19.32	"

The following relates to nine of the leading cities of the Old World :—

London	1 in 51	Madrid	1 in 36
Amsterdam	1 in 31	Lisbon	1 in 31
Hamburg	1 in 30	Rome	1 in 24
Brussels	1 in 26	Venice	1 in 20
Vienna	1 in 22		

The following curious table shows the ratio of deaths in 100,000 persons in Belgium :—

Birth		100,000	25 years		49,995
1 month		90,896	30	"	46,758
2 months		87,936	40	"	40,889
3	"	86,175	50	"	34,789
4	"	84,720	60	"	27,242
5	"	83,571	70	"	17,017
6	"	82,526	75	"	11,273
1 year		77,528	80	"	5,867
2 years		70,536	85	"	2,464
5	"	61,446	90	"	682
10	"	58,258	95	"	153
15	"	56,028	100	"	10
20	"	53,458			

Figures like the foregoing, says the Philadelphia *Inquirer*, are well calculated to induce one to pause and meditate. It will be seen that in five years the mortality rapidly diminishes; and at 10 the probability of life is 48 years. At 20, it is 40 years; at 30, 34 years; at 40, 27 years; and at 50, 20 years. It should be remembered, however, that much depends as well upon the mode of living, the temper, the character, and the occupation, as upon the location. This may be readily inferred by the comparative mortality in the cities above named, as well as by an examination of the chances of those who are engaged in the various trades, occupations, and employments into which the members of the human family are divided. A modern French philosopher has endeavored to prove that the life of man might, as a general rule, be extended to a hundred years. This, however, may be regarded as doubtful, although it is quite certain that with care, caution, and prudence, much might be accomplished in the way of longevity.

POSTAL DEPARTMENT.

BRITISH POST-OFFICE—MAILS FOR LIBERIA.

In our notice in April, 1858, (vol. xxxviii., page 495,) of the postal convention between Great Britain and the Republic of Liberia, which went into effect April 1st, 1858, we summarily stated the rates of postage from the United States and Great Britain to Liberia. We now publish the details of the official notice, not because of their own intrinsic importance to the commercial world, but since they exhibit and illustrate the general regulations and comparatively low rates of British ocean postage to distant countries.

The following rates are substituted for those previously levied:—

Letters not exceeding ½ oz., 6d.; above ½ oz. and not exceeding 1 oz., 1s.; above 1 oz. and not exceeding 2 ozs., 2s.; above 2 ozs. and not exceeding 3 ozs., 3s., and so on, adding two rates for each additional ounce or fraction of an ounce. The postage must in all cases be prepaid. Letters addressed to Liberia may be registered, provided the postage, together with a registration fee of 6d., be paid in advance. Newspapers addressed to Liberia, and posted in conformity with the usual regulations, will be chargeable with a postage of 1d. each, which must be paid in advance, and no charge whatever will be made on the delivery of the newspapers in Liberia. Book packets may be forwarded to Liberia at the following reduced rates of postage, which must be prepaid, and no further charge will be levied in Liberia:—For a book packet not exceeding 4 ozs., 3d.; above 4 ozs. and not exceeding ½ pound. 6d.; above ½ pound and not exceeding 1 pound, 1s.; above 1 pound and not exceeding 1½ pound, 1s. 6.; above 1½ pound and not exceeding 2 pounds. 2s., and so on, adding 6d. for every additional ½ pound or fraction of a ½ pound.

A book packet may contain any number of separate books or other publications, prints, or maps, and any quantity of paper, parchment, or vellum; and the books or other publications, prints, maps, etc., may be either printed, written, or plain, or any mixture of the three. Further, all legitimate binding, mounting, or covering of a book, publication, etc., or of a portion thereof, will be allowed, whether such binding, etc., be loose or attached; as also rollers in the case of prints or maps, markers (whether of paper or otherwise) in the case of books; and, in short, whatever is necessary for the safe transmission of literary or artistic matter, or usually appertains thereto; but no patterns or books of patterns (un-

less consisting merely of paper) will be allowed. The following regulations must be observed :—1. Every packet must be sent either without a cover or in a cover open at the ends or sides. 2. A book packet must not contain any written letter, closed or open, nor any enclosure, sealed or otherwise closed against inspection; nor must there be any letter, or any communication of the nature of a letter, written in any such packet, or in or upon its cover. 3. No book packet must exceed two feet in length, width, or depth.

POST-OFFICES OF SWITZERLAND.

The official returns show the number of travelers and of letters in Switzerland as follows :—

	Passengers.	No. of letters.		Passengers.	No. of letters.
1850.....	492,855	15,106,107	1854.....	719,908	20,509,989
1851.....	525,055	16,363,673	1855.....	814,681	21,863,844
1852.....	570,204	17,573,506	1856.....	941,278	23,733,990
1853.....	667,508	19,773,625	1857.....	1,050,374	24,322,358

Of the 24,322,358 letters, 15,774,509 were inland, and 6,237,740 foreign; 2,310,109 were free. The gross receipts rose from 4,898,327 francs in 1849 to 8,279,989 francs in 1857. The expenses were 6,756,125 francs. The surplus in the last year was, in spite of the opening of 100 miles of railroad in the Cantons, 1,523,864 francs.

POSTAL REVENUE OF THE UNITED STATES.

The revenue of the Post-office Department for the quarter ending December 31, 1857, as exhibited by the adjustment in the office of the Auditor of the Treasury for the Post-office Department, of the quarterly accounts of 27,040 postmasters, is as follows :—

Letter postage collected	$214,146 69
Newspapers and pamphlets	146,523 37
Registered letters	6,961 65
Emoluments from box rents	18,376 04
Postage stamps and stamped envelops sold	1,354,268 66
Total	$1,740,276 41
Expenses of collecting the revenues, viz. :—	
Compensation to postmasters	$571,313 57
Incidental expenses of post-offices	278,245 14
Ship, steamboat, and way letters	4,166 12
Total	$853,724 83
Net revenues	$886,551 58
Amount of stamped envelops and postage stamps used during the quarter	1,297,850 59

IMPROVED MAIL FACILITIES.

The Postmaster-General, in conjunction with a Convention of Railroad Presidents, has recently made some most important arrangements for facilitating the conveyance of the great Southern mail between this city and New Orleans. The route to be taken south of this city, is by the way of Washington City, Richmond, Lynchburg, Knoxville, Chattanooga, Tennessee, and the Memphis and Charleston Railroad, to the Grand Junction, and thence over the Mississippi

Central, the New Orleans, Jackson, and Great Northern Railroads. The contract has been made, and will go into effect about the first of July, when the time will be reduced from seven to a little over four days. At the expiration of the year the same roads are to be prepared to carry a double daily mail at an increase of only fifty per cent upon the price paid for the single daily mail. A contract has also been entered into by the Postmaster-General for the conveyance of the California mails from New Orleans over the Tehuantepec route twice a month, to be delivered in fourteen days at San Francisco. This latter project is stoutly resisted by a rival claimant of the right to the Tehuantepec route, and the settlement of this question will be looked for with interest by all interested in the improvement of the mail arrangements between the cities on the Atlantic seaboard and the great commercial center of our Pacific coast.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

CANALS IN THE UNITED STATES.

The annexed table furnishes, we think, the first complete list of the canals in the United States given to the public. It was compiled by RICHARD S. FISHER, Esq., a gentleman possessing very extensive and accurate information in relation to the public works and the geography and topography of the United States:—

With the river improvements, which are mainly found in Kentucky, where, by a series of dams and locks, several rivers have been rendered navigable to an extent of about 600 miles, the aggregate length of the canals of the United States is 5,131½ miles.

Were it not for an unrivaled system of railroads, the extent of our canals would be a subject of general admiration. They were so before the construction of our railroads. As it is, they perform a most important function in the internal commerce of the country.

The leading work of the kind is, as is well known, the Erie Canal. It connects the harbor of New York with the great lakes. It is the greatest artificial artery of commerce in the world. It is not only the commercial outlet for the great lakes, but is the trunk of numerous canals connecting the former with the Mississippi, through its various tributaries. There are six independent works of the last-named description, viz.:—The Beaver and Erie Canal, the Ohio Canal, the Miami Canal, the Wabash and Erie Canal, the Illinois and Michigan Canal, and the Fox River Improvement, cutting the country into seven distinct subdivisions, entirely surrounded by water.

Of the New York canals, all, with the exception of the Erie, Oswego, and Champlain Canals, have been more or less superseded by railroads. Such is also the case with the canals of Ohio, Indiana, and Illinois, though these still transact a large amount of business. They are, however, steadily losing their relative importance.

Next to the Erie, the most important canals of the country are located in Pennsylvania, and extending into the coal fields—the Delaware and Raritan, and the Chesapeake and Delaware Canals. The canals engaged in the transportation of coal are the Delaware and Hudson, the Schuylkill, the Lehigh, the Delaware Division of the Pennsylvania Canal, and the Chesapeake and Ohio Canals. The three first named, with the Reading Railroad, are the great coal carriers of the country. They transport to tide-water more than 5,000,000 of tons annually.

The Delaware and Raritan Canal is an important work, as it forms the great

inland route of commerce between New York and Philadelphia. It has a capacity for vessels of 500 tons. The Chesapeake and Delaware Canal is also an important work, of large capacity, connecting Chesapeake and Delaware Bays. A canal capable of passing large vessels and steamboats is also in process of construction between Chesapeake Bay and Albemarle Sound. These several works form an internal coast line of navigable waters, for large class coasting vessels, for nearly the whole Atlantic front of the United States. In case of war such a line would prove of great value in keeping up a communication between the North and South.

It is not probable that canals of any considerable extent will be constructed for the future. Nearly all the available routes are occupied. The only important line, the early completion of which is now urged, is the James River and Kanahwa Canal. When this is completed, the construction of new lines of great extent may be considered as at an end.

In the list we have not embraced the canals of Canada, which are works of great importance, and which are largely used by the people of the United States. These are among the finest works of the kind in the world, and with the Sault Ste. Marie Canal, render the St. Lawrence and great lakes navigable from their sources to the ocean.

CANALS OF THE UNITED STATES.

MAINE.

Canals.	Termini.	Length. Miles.
Cumberland and Oxford	Portland, Sebago Pond	20.50
Songo River Improvement	Lock in Songo River	30.00
		50.50

NEW HAMPSHIRE.

Bow Falls	Around Falls in Merrimac River	0.75
Hookset Falls		0.13
Amoskeag Falls		1.00
Sewell's Falls		0.25
Middlesex	See Massachusetts	...
		2.13

VERMONT.

White River Falls	Around Falls in Connecticut River	0.50
Bellows Falls		0.16
Waterqueechy		0.40
		1.06

MASSACHUSETTS.

Middlesex	Probably disused	27.00
Pawtucket	Around Falls	1.60
Blackstone	Probably disused	45.00
Montague Falls	Around Falls in Connecticut River	3.00
South Hadley		2.00
		78.60

RHODE ISLAND.

Blackstone	See Massachusetts	...

CONNECTICUT.

Enfield Falls	Around Falls in Connecticut Riv'r	5.50
		5.50

NEW YORK.

Erie, Eastern Division	Albany, Oneida Lake	138.58
Albany Basin	Albany	0.77

Canals.	Termini.	Length. Miles.
Champlain, Glens Falls Feeder	Watertown, Whitehall	78.00
Black River Feeder Improvement	Utica to Navigable Black	95.00
Erie, Middle Division	Oneida Lake, East line Wayne Co.	73.00
Chenango	Utica, Binghamton	97.01
Oneida Lake	Oneida Lake, Main line	6.00
Oswego	Syracuse, Oswego	38.00
Baldwinsville Side Cut	Baldwinsville, Oswego Canal	0.75
Oneida River Improvement		20.00
Seneca River Towing Path		5.25
Cayuga and Seneca	Montezuma, Geneva	23.00
Crooked Lake		8.00
Chemung	Seneca Lake, Elmira	23.00
Feeder	Corning, Fairport	16.00
Cayuga Inlet		2.00
Erie, Western Division	East line Wayne County, Buffalo	155.00
Genesee Valley	Rochester, Olean	106.00
Danville Side Cut	Danville, Shakers	12.00
Delaware and Hudson	See Pennsylvania	108.00
Junction	Elmira, State line Pa	....
Croton Aqueduct	Croton Lake, New York city	40.00
		1,039.86

NEW JERSEY.

Delaware and Raritan	Trenton, New Brunswick	43.00
Morris	Jersey City, Easton	101.70
Salem	Salem, Delaware River	4.00
		148.70

PENNSYLVANIA.

Main line, Eastern Division	Columbia, Hollidaysburg	173.00
" Western "	Johnstown, Pittsburg	103.00
Susquehanna Division	Juniata Junction, Northumberl'd.	41.00
West Branch	Northumberland, Farrandsville	76.00
Lower North Branch	Northumberland, Pittston	73.00
Upper "	Pittston, State line New York	94.00
Delaware Division	Bristol, Easton	60.00
Schuylkill Navigation	Philadelphia, Port Carbon	108.00
Lehigh "	Easton, Stoddartsville	84.00
Union	Reading, Middletown	77.00
Branch	Junction, Pine Grove	22.00
Susquehanna and Tide-water, 13 m. in Md.	Columbia, Havre de Grace, Md.	45.00
Wisconisco	Clark's Ferry, Millersburg	13.00
Beaver and Erie	Beaver, Erie City	136.00
French Creek Feeder	Meadville, Evansburg	21.00
Penn. and Ohio Cross Cut, 68 m. in Ohio	Newcastle, Akron, Ohio	78.00
Monongahela Navigation	Pittsburg, 10 m. N. Virginia line	84.00
Bald Eagle and Spring Creek Navigation	Bellefonte, Lockhaven	25.00
Conestoga Navigation	Lancaster, Safe Harbor	18.00
Youghiogeny Navigation	McKeesport, West Newton	18.00
		1,349.00

DELAWARE.

Chesapeake and Delaware, 4 m. in Md.	Delaware City, Chesapeake City	13.50
		13.50

MARYLAND.

Chesapeake and Ohio, 3 m. in D. of C.	Georget'n, D. C., Cumberland	191.00
Chesapeake and Delaware	See Delaware	....
Susquehanna and Tide-water	See Pennsylvania	....
		191.00

Canals.	Termini.	Length. Miles.
DISTRICT OF COLUMBIA.		
Chesapeake and Ohio	See Maryland	....
VIRGINIA.		
Alexandria	Alexandria Aqueduct	7.20
James River and Kanawha	Richmond, Buchanan	147.78
Dismal Swamp	Norfolk, Elizabeth City, N. C.	23.00
" Branches	Several	11.00
		188.98
NORTH CAROLINA.		
Weldon	Roanoke River Improvement	12.00
Club Foot and Harlow	Beaufort, Neuse River	1.50
Dismal Swamp and Branches	See Virginia	....
		13.50
SOUTH CAROLINA.		
Santee	Cooper River, Santee River	22.00
Winyaw	River Improvements	7.50
Saluda	" "	6.20
Drehr's	" "	1.30
Lorick	" "	1.00
Lockhart's	" "	2.70
Wateree	" "	4.00
Catawba	" "	7.80
		52.50
GEORGIA.		
Savannah and Ogeechee	Savannah, Ogeechee River	16.00
Brunswick	Brunswick, Alatamaha River	12.00
		28.00
ALABAMA.		
Muscle Shoal	In Tennessee River	35.70
Huntsville	Huntsville, Tennessee River	16.00
		51.70
LOUISIANA.		
Orleans Bank	New Orleans	4.25
Carondelet	"	4.00
Barataria	" Lake Cataouache	8.50
Lake Veret	"	8.00
		24.75
KENTUCKY.		
Louisville and Portland	Louisville, Portland	2.50
Kentucky River Improvement	River Improvements	100.00
Licking " "	" "	94.00
Green " "	" "	190.00
Barren " "	" "	100.00
		486.50
ILLINOIS.		
Illinois and Michigan	Chicago, Peru	102.00
		102.00
WISCONSIN.		
Fox and Wisconsin Portage	Across Portage	2.00
		2.00

MICHIGAN.

Canals.	Termini.	Length. Miles.
Sault St. Marie	Left bank of St. Marie River	0.75
		0.75

INDIANA.

Wabash and Erie, 90 m. in Ohio	Evansville, Toledo, Ohio	469.00
Whitewater, 7 or 8 m. in Ohio	Lawrenceburg, Hagerstown	74.00
		543.00

OHIO.

Ohio and Erie	Portsmouth, Cleveland	307.00
Zanesville Branch	Junction, Zanesville	14.00
Columbus "	" Columbus	10.00
Lancaster "	" Lancaster	9.00
Hocking Valley	Lancaster, Athens	56.00
Walbonding Branch	Coshocton, up West Valley	25.00
Eastport "	Junction, Eastport	4.00
Dresden "	" Dresden	2.00
Miami and Erie	Cincinnati, Wabash Junction	178.00
Muskingum Improvement	Zanesville, Marietta	91.00
Sandy and Beaver	Bolivar, Liverpool	86.00
Canton Branch	Junction, Canton	14.00
Pennsylvania and Ohio Cross Cut	See Pennsylvania	....
Wabash and Erie	See Indiana	....
Whitewater	See Indiana	....
		796.00
Total		5,131.53

CANALS VERSUS RAILROADS—FREIGHTS.

The following table, says the Buffalo *Courier*, shows the amount of toll paid on a barrel of flour, bushel of wheat, and 100 lbs. of other produce and merchandise, passing through the entire length of the canal, under the tariff of tolls in 1857 and 1858, together with the reduction of tolls in 1858 :—

BUFFALO TO TIDE-WATER, 352 MILES.

Articles.	Pounds.	Tolls. 1857. Cents.	In 1858. Cents.	Reduction. Cents.
Flour, bbls.	214	22.91	14.96	7.95
Wheat, bush.	60	6.42	4.14	7.26
Highwines	100	10.71	6.90	3.81
Beef	100	10.71	5.71	5.52
Butter and tallow	100	10.71	3.45	7.26
Stone partly wrought	100	5.35	3.45	1.90
Hides imported	100	17.85	10.35	7.50
Wood and ashes	100	14.28	6.90	7.38
Bacon, cheese, &c	100	5.35	3.45	1.90
Merchandise	100	10.28	6.90	7.38
Stoves and castings	100	10.71	6.90	3.81

In 1857 the average of cargoes of boats going to tide-water was about 125 tons, and the up cargo from 35 to 45 tons. The average cost of running a boat round was in 1857 about $400. The cargoes this spring will range, each, from 160 to 175 tons down, and the up from 80 to 95 tons. The only additional cost this season in transporting to tide-water the increased tonnage, is in handling the property at either end of the route; for it requires no more hands to manage, or horses to tow, a 175-ton boat than it does a 125-ton boat. The increased capacity of the canal this year is, therefore, fully equal to $100 over toll, on a

round trip, in the cost of running a boat, as compared with last year. The Western Transportation Company are now consigning goods and merchandise from New York to Chicago for 40 cents per 100 lbs., or $8 a ton; whi e the railroads from New York to Buffalo, and by steam on the Lakes, charge on the same description of goods, which they divide into three classes, 55 cents, 70 cents, and 80 cents per 100 lbs. The canal is now bringing goods to this city in nine days, and delivering them into Chicago in thirteen and fourteen days from New York. The result is, that while the railroads have formerly carried two-thirds of this description of goods, the canal has now over two-thirds, and the railroads scarcely one-third.

RAILROAD RECEIPTS FOR THE MONTH OF APRIL,

AND FROM JANUARY 1ST TO MAY 5TH.

	Length.	April,		Four months to May,	
	1858.	1857.	1858.	1857.	1858.
Balt. & Ohio & Parkersburg Branch..	484	$428,168	$446,848	$1,514,289	$1,375,697
Balt. and Ohio Washington Branch..	30	36,781	38,784	156,093	152,054
Chicago, Burlington, and Quincy...	138	115,832	83,180	333,635	292,626
Chicago and Rock Island	228	152,307	85,739	445,888	296,461
Chicago, St. Paul, and Fond du Lac.	122	40,663	39,000	.....	.....
Cleveland, Columbus, and Cincinnati	141	95,244	94,547	.....	.....
Cleveland and Toledo.....	206	133,197	85,000	412,846	294,865
Erie.....	497	530,434	545,058	1,628,928	1,719,209
Galena and Chicago.....	259	194,217	139,433	477,035	402,135
Illinois Central.....	704	201,298	174,009	652,446	567,862
Little Miami & Columbus & Xenia..	138	81,153	91,804	.....	.....
Michigan Central.....	269	298,299	223,010	776,465	618,829
Michigan Southern and N. Indiana	536	237,455	180,133	683,480	515,803
Milwaukee and Mississippi.....	235	45,987	76,089	147,931	202,889
New York Central.....	556	746,046	701,916	2,352,687	2,127,967
New York and New Haven.....	62	76,212	68,594	302,125	237,462
New Jersey Central.....	75	63,049	70,907	.....	.....
North Missouri.....	60	3,749	14,067	12,185	44,978
North Pennsylvania.....	33	19,358	25,260	.....	.....
Norwich and Worcester.....	66	26,281	24,827	85,524	72,167
Pennsylvania Central.....	372	488,458	549,165	1,693,401	1,717,449
Pittsburg, Fort Wayne, & Chicago..	382	162,742	137,060	559,667	479,198
Stonington.....	50	69,225	57,368	.....	.....
Terre Haute, Alton, and St. Louis .	212	72,382	75,882	245,441	257,451
Toledo, Wabash, and Western.....	242	51,468	93,312	.....	.....
Watertown and Rome	97	29,230	36,043	94,327	108,678
Pacific.....	132	66,309	63,773	.....	.....
Greenville and Columbia.....	164	23,785	30,440	110,397	116,278
Virginia Central.....	195	39,076	45,163	137,690	162,342
		... 4,543,604	4,291,056	.....	.....
Decrease.....		252,548	.....	.....	.....

The returns show an aggregate slight diminution in general business for the month.

MASSACHUSETTS RAILROADS.

The American *Railway Times* contains some comparative details of the operation of the Massachusetts railroads that are of interest. The railway system is in its infancy, and if it cannot be called a financial failure, is evidently not a success. The collateral benefits of railways are immense. If they had all been built by the community at large for the general benefit, the success would undoubtedly have outweighed many times the cost, but while the public have been thus benefited the individual enterprises are not successful. Their re-

ceipts do not cover wear and tear and expenses. It is only by the application of the largest experience to the management that remedies can be applied, and this experience can be generalized only by the collection of all the details of management hitherto. These details have been best furnished by Massachusetts, and some of the results are as follows:—

There have been eight years of connected reports in Massachusetts, from 1849 to 1857, inclusive. The results are remarkably uniform, and we give those of the first and last year, as showing all the changes which have occurred:—

	1849.	1857.
Number of roads	31	48
Miles of road	1,130	1,367
Gross cost	$51,821,126	$62,162,678
Average per mile	45,600	45,478
Gross receipts	6,162,014	9,749,918
Gross expenses	3,100,694	5,785,144
Net income	3,061,320	3,994,774
Net annual profit	6.09	6.10
Receipts per mile	$1 41	$1 92
Expenses per mile	0 71	1 10
Income per mile	0 70	0 82
Number of passengers carried	8,788,589	11,250,189
Tons of freight carried	2,167,754	3,231,672

This table affords room for some deductions of interest. The increase of gross *receipts* is 56 per cent. The increase of gross *expenses* is 90 per cent, but the increase of net income for the benefit of shareholders is about 31 per cent, or $930,000.

The railroads of Massachusetts are probably managed with more scrutiny into expenses than elsewhere. It appears that the total expenses are 58 per cent of the whole receipts. In 1849 they were but 50 per cent. This is a confirmation of the opinion that the economy of the roads is for some reason less. At least, such is the obvious bearing of the figures.

Another general fact of interest is the relation of the roads and their business to the surface and population of the State. These relations may be thus expressed:—

Surface.....square miles	7,800
Population	1,100,000
Miles of road	1,367
One mile of road to.....miles of surface	6
One mile of road to..... people	800

Comparing this with the railroads of Ohio, we find that, in proportion to surface, the roads of Massachusetts are to those of Ohio, as 14 to 6; and in proportion to population, just about the same.

The deduction from these facts is just what we should infer naturally would be the case, viz., that the capacity of a State or country to sustain railroads, is in proportion *to its people and not its surface.* It is the people who furnish the freight as well as the passengers; and, hence, it may be stated as a general truth, that if one million of people would afford sufficient income to a given number of miles of railroads, two millions will support double as many. Nor do we see any definite limit to this principle.

Another general deduction from these facts is, that at the ratio of 800 persons to a mile of railroad, the roads will pay over six per cent per annum, and be perfectly secure. Although this is not a speculative interest, yet it may be regarded as enough for *safe* stocks. The distribution of net income is, of course, by no means even. *One* short road pays 13 per cent,; *three* pay 8 per cent,; *six* pay 7 per cent, and *three* pay six. The residue pay smaller rates, and several only two or three per cent. These differences will always occur, according to the more or less favorable localities, and good or bad management.

JOURNAL OF MINING, MANUFACTURES, AND ART.

INCIDENTS OF MANUFACTURING.

The Philadelphia *United States Gazette*, in connection with the progress of manufacturing in that neighborhood generally, remarks, in relation to American manufactures, that its establishment has been no holiday task. From the very beginning they have had not only to contend against the inherent difficulties of the case—the creation of skill in workmen, and the building up of new establishments—but they have also had a far more difficult contest to carry on against the disciplined and powerful rivalry of foreign manufactures. More than one branch of the now successful classes of textile fabrics in this city has grown up in defiance of sharp and recent difficulty of this sort. That designated as hosiery manufactures, located in Germantown and the northern part of the city, is a conspicuous case. A very few years since the Nottingham weavers had exclusive control of the market for what is now by far the largest part of this business—the making of those graceful articles of woolen knit-work worn for ornament and for comfort equally, as "operas," "comforters," head-dresses for children, and a great number of uses not easily named. Within ten years this manufacture at Germantown and other parts of this city, has attained a success which completely fills the American market, including the Canadas, to the exclusion of the Nottingham article entirely. The total product we have made up of this class exceeds one million five hundred thousand dollars of value annually, and in this statement we have placed the production of small establishments, working five to ten looms, at only two-thirds the value given by proprietors for each loom in the larger establishments.

These articles are particularly adapted to the general prosperity of a district, from the fact that half the number of persons employed can work at their own choice of hours at their own houses. Though requiring large buildings and steam-power in part of the processes, an equal part of the labor may be given out to be done, and the compulsory attendance on mills, which is sometimes a painful feature of cotton and woolen manufactures, is unnecessary. The value of this resource as an element of prosperity in any community may be judged by a visit to the extending streets of Germantown, and by observing the ease with which the population so employed have borne the recent suspension of business.

The principal reason for the success of American fabrics of this sort is the superior grade of wool which can be used here. In England, the high price of all good qualities of wool compels the use of harsh grades, and such as compare at great disadvantage, when made up, with qualities costing the same price here. The skill applied has attained an equality with the best in Nottingham now, and but little more is requisite to change the current of supply, existing a few years since, to one directed towards even England itself. The great point is already gained of liberating the American market from foreign dependence, and this point has cost more of effort and of sacrifice, than the further step of sending goods abroad would now cost. Great credit is due to the energetic proprietors of these factories in this city, since it is by their determined energy that these points have been already gained. If any doubt the difficulties which have actually surrounded even the least efforts at erecting the making of textile fabrics of every class into independence, let them converse, as we have done, with those who have conducted establishments for ten or fifteen years past. The most incredulous and indifferent will then concede that the establishment of a branch of production, making up a million-and-a-half of dollars' worth of goods annually, is a real service.

In silk thread, and many narrow fabrics of silk, silk and wool, silk and cotton, etc., a rapid advancement is now taking place. New and original machinery is applied in one factory, with great success, to the manufacture or completion of laces, ruches, and the like goods. In fringes and ornamental silk

work there is a large production, which is expanding rapidly, under the favorable operation of the reduction of duties on raw silk. Much of the American market is supplied by Philadelphia goods of this class, which are, perhaps, supposed by the purchasers to be English or French. They deserve already to give the city a name which would carry as strong a recommendation with it as to name them Parisian, and a principal purpose we have in these articles, is to give Philadelphia the reputation it deserves in this respect, and to prevent the continuance of the humiliating usage of deferring to foreign cities in this respect. In this class of silk and mixed ornamental goods, there is now a production of two millions of dollars annually in this city, and we challenge a comparison of the fabrics produced with those from any foreign source whatever.

It is unquestionable that Philadelphia is to continue to lead all other American cities in the production of delicate textile fabrics, as well as of the heavy classes, so well known as "Philadelphia goods" now. Climate, cheap residence, present skill, and a favorable locality for distribution, all combine to aid this result. The energy of manufacturers is sufficient, also, and we trust the press will do its duty of controlling that general public opinion which does far more in the case than manufacturers are accustomed to think. A perverse taste, which catches at the foreign and remote, simply because they are foreign, will always exist to some extent, but this can be effectively beaten down, even in commercial matters, by a determined course on the part of the press.

WOOLEN FACTORY IN OREGON.

A late Oregon paper says:—We have received from Mr. L. E. Lyon of Independence, Oregon, a sample of woolen fabric made by the "Willamette Wool Manufacturing Co." in Salem. In point of texture and quality it compares favorably with any manufactured in the mills of the Eastern States. The experiment of a woolen factory in a newly-settled country like Oregon, speaks well of the enterprise of those engaged in it, and is deserving the utmost success. We find the following description of the factory, at which the sample before us was manufactured, in a correspondence to the Siskiyou *Chronicle*:—

"The woolen factory at this place (Salem) is composed of handsome and substantial edifices. The machinery consists of sixteen looms—eight broad ones, for the manufacture of blankets and broadcloths; two spinning jacks of one hundred and fifty spindles each; six set of carding machines; fulling mill, not one of the great pounding kind, but of singular contrivance, and fulls by squaring the cloth between rollers; a very angry-acting little wool-picker, that has teeth resembling those of threshing machines, and makes one thousand revolutions per minute, creating a perfect wool storm. There are also several ingenious contrivances for reeling, spooling, and washing the wool, and dyeing the cloth when made. The entire cost of the concern was about seventy-five thousand dollars, including the digging of the ditch which supplies the machinery with water. The factory employs at present thirty persons; thirteen of whom are girls. The advantages which must necessarily result to Oregon from this manufacturing enterprise are incalculable. I consider that in this, we, of Oregon, have much to be proud of; and the projectors will not only reap rich and merited rewards for their public spirit, but universal admiration everywhere."

NEW GOLD REGIONS ON THE PACIFIC.

Recent accounts from Vancouver's Island represent that extensive gold mines have been discovered to the northward, in the British Possessions, between Fort Hope and Thompson's River, and that a regular stampede from the settlements to the diggings has taken place; the gold fever raging with as much violence as it did in California after the first discovery there in 1848. These accounts are cumulative testimony towards establishing the fact that the gold re-

gion extends on the Pacific coast, from Mexico, through California, Oregon, and Washington Territories, to the frozen regions of the North. Probably not one-fourth of the gold fields of North America are explored sufficiently to warrant any conclusion as to their value. It is safe to say, however, from facts already known, that the gold mines on this coast are ample in extent, to give profitable employment to a million men for a very long period. Few who have traveled through the mines of California, are willing to admit that the gold deposits can be exhausted in centuries. There are single mountains, like Table Mountain in Tuolumne County, that will require more labor, before exhausted of their riches, than would be needed to build the Pacific Railroad.

MANUFACTURE OF SILK IN CHINA.

The silks manufactured by the Chinese are especially remarkable for their bright colors; and, with the exception of their velvets, are fully equal, if not superior, to those of European manufacture. Everybody who is able wears silk, not only his clothes and stockings, but his boots and shoes also being made of that article. The finest silk is made in Tsche-Kiang and Kiand-Su, 27° and 32° north. In Canton there are 17,000 silk weavers. The other principal manufactories are in Nankin, Hancheu, and Tu-tscheu. The looms differ but slightly from those used in Europe before the time of Jacquard. The work is done entirely by hand, and the workmen are paid at the rate of six to ten dollars monthly, their daily labor continuing from fourteen to sixteen hours. The combs are made of reeds, the shears and pinchers of iron, and the polisher of the same metal. A knife is used to cut off the threads from the velvets. They have also double looms, by which two pieces of equal length may be manufactured simultaneously. They weave foulard, gauze, and taffeta, and their green cloths are especially excellent on account of their stability of color. They also make handkerchiefs, although they formerly used paper for the purpose to which they are applied. Their Gros de Naples is very much superior to that manufactured in France. The warp is formed of twisted silk, the woof of mi grenade. Another kind of Gros de Naples bears more resemblance to that of European manufacture. They also manufacture serge and blue velvet. All silk fabrics are stamped with the manufacturer's name, in Chinese characters. The crape is prepared as in France. The gauzes are distinguishable from the French by their superior lightness and neatness. The Chinese are also very dexterous in knitting. The knitting-needles of Ningpo are well known, and do not cost more than ours, although they are made one at a time, with the hand. The handsomest specimens of knitting are executed by men, the ordinary by women, and the prices of their wares are wonderfully low. In printing the silk fabrics in Ningpo, the color is laid with a brush upon a form, and cloth being spread out upon it, is beaten with a wooden block. This operation is best performed in Tung-Yung and in Tsche-Kiang. The various colors employed by the Japanese show them to have made greater progress in chemistry than the Chinese. In Tu-tscheu the simple foulard handkerchiefs are made which are sent to India and this country. They are stamped in Canton, where also there are prepared knitted shawls for the South American market, where they are used alike by men and women. A beautiful scarlet shawl of this kind, manufactured for a Peruvian General once cost $200. A knitted fire-screen, made of velvet, on which were portrayed a Chinese woman with a child, a dog, a rose, and an almond tree, and several animals, cost $50. The most beautiful of all their fabrics of this kind are their paintings on velvet, the figures of which stand out in relief. Entire scenes are delineated in this manner. The silken sun-shades are sent to South America particularly. On their ribbons are pictured fantastic flowers, trees, birds, and insects, of the most outlandish forms and brighest colors. There is as great a demand there for these articles as among us. The most important manufactories are in Nankin, Tu-tscheu, and Hang-tscheu, and their cost is extremely low.

STATISTICS OF AGRICULTURE, &c.

FRUIT TRADE OF FRANCE.

Paris is the very best market for the sale, in almost unlimited quantities, of everything eatable in the shape of fruit. Many species which, from their delicate nature, seem unfitted for distant transportation, yet find their way thither from great distances, and are freely offered to the consumers of the capital. They come, too, as fresh as when first gathered, owing to their peculiar mode of package in baskets. in which they may remain forty-eight hours, and withstand all sorts of shaking and jolting, without suffering any change.

The art of packing chemes and gooseberries in baskets is termed, in the rustic language of the market gardener, ring—bagging—baguer. The wives and daughters of cultivators in the neighborhood of Paris possess this talent in remarkable perfection. Their mode of proceeding is in this wise:—the fruit being first gathered in the most delicate way possible, is deposited in large, round, flat baskets, borne upon the head. As they are brought in, the women pack the fruit in other baskets of the capacity of four or five kilogrammes. The shape of these baskets is perfectly suited to their destination. They are made of brown willow, covered with its bark. They are very loosely put together, so that at short distances around the tops may be inserted small branches of chestnut with their foliage upon them, while the bottom of every basket has a thick bed of the same kind of leaves. These precautions taken, the baskets are filled and heaped up to the top of the handle. The ends of the branches are then folded over the fruit, passing them above the basket handle in intertwining their extremities. The whole is then tied together by a few turns of large pack thread, and the packing is complete. A basket of cherries or gooseberries well bound together in this way can travel without any extraordinary precautions and without danger to the fruit, not only in boat and railway car, but even on a diligence or donkey cart, on the roughest roads.

The process just described is hardly practiced or known beyond the departments bordering on the Seine, or such as send fruits to Paris. By means of the complete network of railroads which now environ the capital, the departments of the south and center are put in the way of participating in the advantages of this rapid means of communication. Extensive orchards now newly planted will soon yield immense additional quantities of all sorts of fruits for Parisian consumption. Among these fruits, cherries, blackhearts, bigarreaus, could safely reach their destination only by being carefully packed in the manner described. The cherries of the departments of the south are sold in Paris at fabulous prices prior to the time when the environs of Paris can furnish any addition to the supply. This may be inferred from the following figures. A kilogramme of cherries is sold, delivered in Paris, for two francs, in the latter part of May. The retailers buy these first cherries to decorate rods ornamented with the braided leaves of the lily of the valley—every rod has six cherries weighing at least 3½ gr. With a kilogramme of cherries, then, they can make fifty batons or rods of cherries, each selling for ten centimes. So from a kilogramme of cherries, the retailer clears full five francs from the sale of his cherry rods, from which is only to be made the very trifling deduction of the cost of the rods and leaves.

After the *red fruit*, the kind most difficult to pack well is the *grape*. In all the communes which send to Paris the excellent Chasselas grape, sold under the name of the Chasselas de Fontainebleau, of which Thomery is the center, numerous companies of women and children are accustomed to seek in the forests of Fontainebleau, Ferrieres, Sercette, and Orleans, the fern leaves necessary for grape packing. They are dried with great care after removing their stalks and the coarser parts, and are then kept ready for use. The clusters are placed in their leafy bed in sheets of unsized paper, and then covered with a thick layer of leaves, kept in place by sprigs of fresh willow. The peculiar elasticity of the dry fern leaves thus keeps the grapes from every bruise.

The changeful climate of Paris does not allow regular crops of apricots to be counted upon in the gardens and orchards of that capital. There are frequently intervals of five years between full crops. Paris, therefore, obtains this fruit, rare and expensive always, from the department of Puyde-dome and from l'Allier. The apricots are gathered a little before maturity, so that they may not decay during their transport; they are then packed in flat boxes, and sent by railroad. They arrive in good condition, maturing in the boxes, and are frequently kept some days before consumption.

Rouen, Havre, Fecamp, and Dieppe make to Russia, Sweden, and Norway frequent shipments of apples. Each apple is wrapped in a sheet of grey common paper. They place the fruit, thus treated, in large boxes containing a thousand each, and in order that they may not become bruised on the passage, the space between each apple is carefully filled with paper clippings, tightly pressed together. The best pippins, or Reinettes, particularly the Reinette gris or grey pippins, are the best for a long voyage, if carefully treated in this way.

The same process of packing is resorted to with the oranges of Portugal and Malta, the Baleares and Azores, where the whole harvest is destined for transportation. The orange boxes are, however, rather smaller than those used for apples, as the peculiar nature of the fruit does not permit the confinement of so great a quantity in a confined space.

The figs and dates of the East, packed in baskets and boxes, are the object of an immense trade. In the kingdom of Darfour, (Central Africa,) baskets of dates of a determined weight, supply the functions of money; a certain number of baskets representing a horse, a camel, a coat, a bag of grain, and are thus received in exchange for these articles.

COTTON CULTIVATION IN AFRICA.

Mr. Thomas Clegg, of Manchester, has published an interesting letter, describing the result of the efforts which have been made by him for the last seven or eight years to promote the cultivation of cotton in Africa, with the view of putting down the slave trade by showing the native chiefs and others "that it was their interest to employ their people, instead of making war upon each other for the sake of getting a colorable right or pretext for selling into slavery the prisoners taken in such marauding expeditions." An opening experiment at Sierra Leon failed, and he decided to go at once to interior cotton fields, and to the residence of the chiefs about Abbeokuta. Finding, however, that the European agents either died off or had returned to this country, several young Africans were selected by the Missionary Society and sent over to England, at the expense of the Native Agency Committee, to be educated and instructed in the best method of cleaning the cotton without injury to the fiber. The African Native Agency Committee of London also supplied packing presses and other machinery, and Mr. Platt supplied cotton gins, goods, and money to purchase the cotton with. Up to the 1st ultimo he had sent out 175 cotton gins, costing from £3 17s. 6d. to £10 10s. each. He has entered into correspondence with upwards of 76 native and other African traders, 21 or 22 of them being chiefs, and many of them having begun to consign their cotton and other produce to him. Three manufacturers, of Manchester, have sent out 250 cotton gins, and the natives are at present, with their present appliances, able to turn out yearly 4,368,000 pounds of clean cotton, equal to 10,000 American bales. This he regards as a rare instance of rapid development of a particular trade, and, after a view of all the known facts, he "can clearly see a prospect of the slave trade being entirely starved out." The cotton, from whatever part of Africa it comes, will invariably sell in Liverpool for 2d. or 3d. per pound more than East India

cotton. For some years it has never cost more than ½d. per pound in the seed; more has been offered at that price than the agents, chiefs, and dealers have been able to buy up; and it can be laid down in Liverpool at 4½d. per pound, whilst it is now worth 7d., and not long ago was worth 9d. per pound. Mr. Clegg says that, believing in the goodness of the cause, he is anxious to raise £2,040 for the establishment of four new cotton stations.

CHICCORY CULTIVATION.

This plant (*cichorium intybus*) is called by many persons "German coffee," on account of the use to which it is so extensively applied in Germany. It is very similar to the succory often found growing wild on the slaty soils of New England, and it may be profitably cultivated for home consumption, as a great quantity of it is now sold in New York and other places, all of which is imported from Europe. It is often mixed with the ground coffee sold in stores, but the Germans buy it separate and mix it with their coffee to suit themselves. When combined with coffee it has been called an *adulteration*, but this is not a correct application of the term, because it really does not impart inferior or injurious qualities to the coffee, but is by many persons considered an improvement. It at least imparts a superior taste to inferior coffee, and as it is cheaper and held to be as healthy, it should be purchased separately and mixed with coffee in quantities to suit the tastes of those who use it as a beverage. The proportions of the two used together are one of chiccory to three of coffee.

This plant is now cultivated very extensively in France, Germany, Holland, and England. It is sown and cultivated in rows, like the carrot, and the roots are taken up early in the autumn. Farmers who cultivate it on a large scale partially dry the roots and sell them to manufacturers, who roast, grind, and pack them up for sale. Those who cultivate little patches for their own use, store the roots in their cellars, cover them with sand, take out a few as wanted, wash, cut them in slices, roast them like coffee, and then grind them.

BEET ROOT SUGAR IN FRANCE.

The Paris *Patrie*, of the 6th ult., gives a summary of the state of the beet root sugar manufacture in France, as shown in official reports, for the season of 1857–1858, to the end of the month of February. It appears from it that there were 341 factories in operation, which is an increase of 58 on the previous year. There were 146 of them in the department of Nord; 54 in Aisne; 62 in Pas de Calais; 34 in Somme; 21 in Oise; and 24 in fourteen other departments. There were five works closed, but with sugar on hand, against nine the previous year.

The produce of the period stated had been 132,000,000 kilogrammes—an increase of 54,000,000 kilogrammes on the previous season. The quantity taken for consumption was 54,000,000 kilogrammes—an increase of 7,000,000 kilogrammes. The exports, deposits in warehouses, &c., amounted to 80,000,000 kilogrammes. Last year they were but 52,500,000 kilogrammes. On the 28th of February, the total in the warehouses of all kinds, and in all stages of manufacture, was 47,000,000 kilogrammes. At the same period in 1857, it was but 17,700,000 kilogrammes. There were in the entrepots 32,190,000 kilogrammes —an increase of 12,750,000.

AGRICULTURAL FAIR.

The great fair of the Illinois State Agricultural Society is to be held at Centralia on the 14th of September next, and great preparations are being made to concentrate there everything of interest in the great Mississippi Valley. The Illinois Central Railroad will run *free trains* night and day, for a distance of 100 miles each way on the road, and it is expected that the farmers will concentrate there with their families.

STATISTICS OF POPULATION, &c.

CENSUS OF NEW YORK.

We have received from Gideon J. Tucker, Secretary of State, the Census of the State of New York for 1855, taken in pursuance of the laws of this State, and prepared from original returns. The volume is a large quarto of 525 pages, and embraces elaborate statistical statements relating to population and the industrial interests of the State. Though its publication has been unavoidably delayed by the immense amount of labor expended in its preparation, the results are invaluable. One thousand seven hundred men were employed in the work, their aggregate labor being equal to the steady labor of one man for twenty years. The growth of the State since the year 1790, is shown by a comparison of the results of the various State and national censuses taken, inserted in the introduction. Tables giving the total population of each town, at each census since 1790, with the date of erection, &c., embrace information of much value, showing the development of our numbers and resources. Diagrams are introduced, to illustrate the changes of population in different sections of the State, and their mutual relations. The following items from the introductory table, giving the comparative results of national and State censuses, are of chief importance :—

	National census. 1840.	State census. 1845.	National census. 1850.	State census. 1855.
Total population	2,428,921	2,604,495	3,097,394	3,466,212
Males.....	1,231,170	1,311,362	1,567,941	1,727,650
Females	1,197,751	1,293,153	1,529,453	1,738,562
Number of whites.....	2,378,890	2,559,148	3,048,325	3,420,926
Males "	1,207,357	.....	1,544,489	1,706,273
Females "	1,171,533	.....	1,503,836	1,714,653
Colored persons.....	50,027	.....	49,069	45,286
Males "	23,809	.....	23,452	21,377
Females "	26,218	.....	25,617	23,909
Number of voters.....	.....	539,379	.....	652,322
Native "	.....	.....	.....	516,745
Naturalized "	.....	.....	.....	135,577
Number Deaf and dumb ...	1,107	1,082	1,263	1,422
" Blind.....	875	877	1,181	1,136
" Insane.....	*2,146	2,168	2,521	2,742
" Idiotic.....	.....	1,620	1,665	1,812
Marriages (previous year)...	.....	27,783	15,732	21,106
Births (previous year)	.....	42,938	37,639	51,082
Deaths (previous year)	.....	36,284	45,584	46,297

* The insane and idiotic were reported together in 1840.

The extreme duration of life reported in the present census was 120 years; and the number 100 years old and upwards was ninety-two. The number of persons of extreme age in a given country is found to be but an uncertain indication of the general average of human life.

The number of our population in 1855, born in the several States of the Union, and in foreign countries, is as follows :—

NATIVE.		FOREIGN.	
New York	2,222,321	Canada	47,842
Maine	5,818	Nova Scotia	1,602
New Hampshire	14,941	New Brunswick	766
Vermont	54,266	New Foundland	898
Massachusetts	57,086	West Indies	1,846
Rhode Island	11,787	Mexico	119
Connecticut	63,691	South America	296
New Jersey	40,891	England	102,286
Pennsylvania	31,472	Scotland	27,523
Delaware	224	Ireland	469,753
Maryland	2,568	Wales	8,557
District of Columbia	2,187	France	18,366
Virginia	2,158	Belgium	454
North Carolina	792	Holland	4,214
South Carolina	903	Germany	218,997
Georgia	672	Prussia	6,852
Florida	189	Austria	1,197
Alabama	208	Switzerland	3,948
Mississippi	163	Italy	1,231
Louisiana	695	Spain	570
Texas	96	Portugal	291
Arkansas	29	Poland	1,880
Missouri	307	Norway	537
Tennessee	185	Sweden	1,472
Kentucky	545	Russia	256
Ohio	5,256	Denmark	583
Indiana	606	East Indies	104
Illinois	1,255	Africa	76
Michigan	3,418	Turkey and Greece	48
Wisconsin	1,163	Islands	159
Iowa	106	Asia	162
California	51	At sea	511
Territories	26	Unknown	17,288
Total native	2,528,444	Total foreign and unknown	937,768

The number of churches in the State is 5,077; value of churches and lots, $27,769,328; number of sittings, 2,141,159; number of persons usually attending, 1.124,211; number of church members, 702,384; salaries of clergy, including the use of real estate, $2,411,683.

The number of newspapers in the State is 559, and of other periodicals, 112. Aggregate circulation of dailies, 312,783; semi-weeklies, 40,387; weeklies, 1,294,340; semi-monthlies, 264,600; monthlies, 1,287,650.

Without attempting to give a further analysis of this census, we extract the following comparative statement of the population of New York State, by counties :—

	1840.	1845.	1850.	1855.
Albany	68,598	77,268	93,279	103.681
Allegheny	30,254	31,402	37,808	42,910
Broome	22,338	25,808	30,660	36,650
Cattaraugus	28,872	30,169	38,950	39,530
Cayuga	50,338	49,663	55,458	53,571

	1840.	1845.	1850.	1855.
Chautauque	47,976	46,548	50,493	53,380
Chemung	14,483	17,742	21,757	27,288
Chenango	40,785	39,900	40,311	39,915
Clinton	28,157	31,278	40,047	42,482
Columbia	43,252	41,976	43,073	44,341
Cortland	24,607	25,081	25,140	24,575
Delaware	35,396	36,990	39,834	39,749
Dutchess	52,398	55,124	58,992	60,635
Erie	62,465	78,633	100,998	132,331
Essex	23,634	25,102	31,148	28,539
Franklin	16,518	18,692	25,102	25,897
Fulton	18,049	18,579	20,171	23,284
Genesee	28,705	28,845	28,488	31,532
Greene	30,446	31,957	33,126	31,137
Hamilton	1,907	1,882	2,188	2,543
Herkimer	37,477	37,424	38,244	38,566
Jefferson	60,984	64,999	68,153	65,420
Kings	47,613	78,691	138,882	216,355
Lewis	17,830	20,218	24,564	25,229
Livingston	42,498	38,889	40,875	37,943
Madison	40,008	40,987	43,072	43,687
Monroe	64,902	70,899	87,650	96,324
Montgomery	35,813	24,643	31,992	30,808
New York	312,710	371,223	515,547	629,810
Niagara	31,182	34,550	42,276	48,282
Oneida	85,310	84,776	99,566	107,749
Onondaga	67,911	70,175	85,890	86,575
Ontario	43,501	42,592	43,929	42,672
Orange	50,739	52,227	57,145	60,868
Orleans	25,127	25,845	28,501	28,435
Oswego	43,619	48,441	62,198	69,398
Otsego	49,628	50,509	48,688	49,735
Putnam	12,825	13,258	14,138	13,934
Queens	30,324	31,849	36,883	46,266
Rensselaer	60,259	62,338	73,868	79,284
Richmond	10,965	13,673	15,061	21,389
Rockland	11,975	13,741	16,962	19,511
St. Lawrence	56,706	62,354	68,617	74,977
Saratoga	40,553	41,477	45,646	49,379
Schenectady	17,387	16,630	20,054	19,572
Schoharie	32,358	32,488	33,548	33,519
Schuyler	16,388	17,327	18,519	18,777
Seneca	24,874	24,972	25,441	25,358
Steuben	40,651	46,203	58,388	59,099
Suffolk	32,469	34,579	36,922	41,066
Sullivan	15,629	18,727	25,088	29,487
Tioga	20,527	22,456	24,880	26,962
Tompkins	32,296	32,264	32,694	31,516
Ulster	45,822	48,907	59,384	67,936
Warren	13,422	14,908	17,199	19,669
Washington	41,080	40,554	44,750	44,405
Wayne	42,057	42,515	44,953	46,760
Westchester	48,686	47,394	58,263	80,678
Wyoming	34,245	30,691	31,981	32,148
Yates	20,444	20,777	20,590	19,812
Total	2,428,921	2,604,495	3,097,394	3,466,212

PROGRESS OF POPULATION IN LONDON.

We have compiled with great care the following table of the births and deaths in the city of London, from November 25, 1854, to December 1, 1855, from the returns of the same, as registered within the several municipal precincts. The

largest number of births registered, it will be seen, was in the week ending March 31, 1855, reaching to 2,099; the proportion of the sexes, unfortunately, was not stated, as was the case in a number of instances, both in births and deaths. The greatest number of deaths was in the week ending January 27, 1855, being 1,630; and in the week previous the deaths exceed the births by 35.

	BIRTHS.			DEATHS.			Excess of births.
	Males.	Females.	Total.	Males.	Females.	Total.	
Nov. 25, 1854	819	774	1,593	618	644	1,262	331
Dec. 2	806	804	1,610	sex not stated		1,350	260
9	777	769	1,546	"	"	1,331	215
16	782	817	1,599	"	"	1,300	299
23	births not stated			639	652	1,291	...
30	825	824	1,649	805	780	1,539	110
Jan. 6, 1855	908	879	1,787	sex not stated		1,404	383
13	881	825	1,706	"	"	1,466	240
20	779	735	1,514	"	"	1,549	...
27	830	822	1,652	"	"	1,630	22
Feb. 3	845	803	1,648	"	"	1,614	34
10	934	898	1,832	"	"	1,546	286
17	903	912	1,815	741	734	1,475	340
24	916	874	1,790	791	813	1,604	186
Mar. 3	838	888	1,726	sex not stated		1,560	166
10	971	949	1,920	679	698	1,377	543
17	906	873	1,779	sex not stated		1,425	354
24	800	758	1,558	698	679	1,377	181
31	sex not stated		2,099	sex not stated		1,604	495
April 7	828	689	1,517	"	"	1,226	291
15	912	806	1,718	715	632	1,347	371
21	916	872	1,788	sex not stated		1,087	701
28	892	864	1,756	"	"	1,132	624
May 5	845	779	1,624	597	588	1,185	439
12	909	769	1,678	616	567	1,183	495
19	820	836	1,656	620	528	1,148	513
26	855	761	1,622	600	587	1,187	435
June 2	714	688	1,402	542	531	1,073	329
9	870	840	1,710	565	522	1,087	623
16	718	756	1,474	529	470	999	475
23	882	869	1,751	548	527	1,075	676
30	879	853	1,732	669	604	1,273	449
July 7	680	676	1,356	493	433	926	430
14	679	691	1,370	515	426	941	429
21	798	724	1,522	476	439	915	607
28	726	677	1,403	576	460	1,036	367
Aug. 4	880	798	1,678	473	490	963	715
11	833	750	1,583	482	511	993	590
25	755	785	1,540	476	527	1,003	537
Sept. 1	840	831	1,671	sex not stated		1,031	640
8	803	774	1,577	551	464	1,015	562
15	816	734	1,550	523	510	1,033	517
22	841	817	1,658	466	465	931	727
29	894	813	1,707	624	536	1,160	547
Oct. 6	715	730	1,445	484	467	951	494
13	793	771	1,564	440	430	870	694
20	915	810	1,725	480	447	927	798
27	737	790	1,527	sex not stated		903	624
Nov. 3	671	675	1,346	451	468	919	427
10	896	818	1,714	478	513	986	728
17	855	785	1,640	527	448	975	665
24	828	786	1,614	547	526	1,073	541
Dec. 1	828	787	1,615	sex not stated		1,124	491
Total	...	...	85,056	....	....	63,316	21,740

MERCANTILE MISCELLANIES.

MEDITATIONS ON A RAILROAD BOND.

We transfer to our pages some verses from the Hartford *Courant*, which may amuse, if not instruct, some of our readers:—

It is a very pretty thing,
And charmingly engraved;
As neatly gotten up a cheat
As ever broker shaved.
And I have quite a lot of them
All safe and snug at home,
Enough to make a picture book
As large as Gibbon's Rome.

I know I bought them very cheap,
At only eighty-three—
Indeed, we higgled quite a time
Before we could agree;
"What! eighty-three for ten per cents,
Dear sir, you must be crazed—
Yet I shall have to let them go,
For money must be raised."

Before that very week was out
I thought I smelt a rat;
For I was told that I could buy
For even less than that.
My neighbor bought at seventy-six,
I never asked him how;
But I am very glad to learn
That he has got them now.

Those thousand dollar promises
Are printed by the ream!
And being secured by mortgages,
How very safe they seem.
Moreover, I reserved the right
To change them into shares,
Whose income by-and-by would be
A fortune for my heirs.

The coupons—those delicious things!
How temptingly they look,
As beautifully lithographed
As Olney's Copy-book.
Yes, there they are—not one cut off—
The ranks are perfect yet,
And like to be, for all that I
From them shall ever get.

Ah, well—the dream is over now,
And so I sit and sigh,
And curse the day when oily tongues
Persuaded me to buy;
I spend my time with tearful eyes,
O'er the delusive shams,
In singing sad lugubrious hymns,
And penitential psalms.

OBITUARY OF A NEW YORK MERCHANT.

The commercial community have been called upon, during the past month, to regret the demise of one of its most intelligent merchants and citizens.

John R. Peters, who died at his residence in New York April 23, was one of the prominent men of a generation which is fast passing away. He was the eldest son of General Absalom Peters, of Hebron, Connecticut, and was born at Wentworth, New Hampshire, in 1783. He commenced his business education in Groton, Massachusetts, in the same establishment with the late Amos and William Lawrence, of Boston; went from there to Troy, New York, (where he carried on a successful business for several years,) and came thence to this city in 1814, where he has resided ever since. As one of our leading merchants for a number of years, he did much by his enterprise in developing the cotton trade of the South, where he had extensive business connections for many years, and sent (in 1816) the first vessel cleared from this port for Mobile, then so little known—although an old settlement—that he could get no reliable information concerning its locality except from Aaron Burr. Possessing a strong and active mind, untiring industry and energy, and taking great interest in the progress of the city, he had retired from business but a short time when he was elected to a seat in the Common Council, in which he continued as a leading Democrat for several years, and was instrumental in projecting and carrying out some of the most important city improvements of the day. After leaving the Common Council, he held the office of "Commissioner of the Almshouse" for several years, and introduced some important changes into the management of that department. We will mention one as an indication of the character of the man-

The children in the almshouse, of whom there were a large number, were attacked with malignant opthalmia, which was spreading so rapidly that the doctor recommended immediate removal of all the children to a roomy and healthy locality, as the only means of saving the eyesight of many. Mr. Peters urged upon the city, as they owned the proper place, the necessity of purchasing the "Long Island farms," opposite Blackwell's Island, for the purpose. As the project was likely to be defeated by some of the authorities not aware of the necessity of the case, Mr. Peters purchased the property on his own responsibility, and had the children moved immediately. The results justified the wisdom of the proceeding, after proving which he sold the property to the city at the price he gave for it, although, as he informed them, fully aware of its rapidly increasing value, on condition they would retain it for similar purposes. As the offices held by Mr. Peters were at that time purely honorary and the duties very arduous, if properly discharged, and his property and health had become impaired by strict attention to the interests of the city, he retired from office to devote himself to his family growing up around him, and his numerous friends. He was eminently a social man, witty, and possessed of an inexhaustible fund of highly interesting and original anecdote, which he told in an inimitable manner, and no doubt had as extensive a personal acquaintance as any man in the United States. He had been growing infirm for the last four years of his life, but kept up his interest in the events of the day till the last, spending his summers at his country seat at Saratoga Springs, as the most ready means of enjoying the society of his old friends from various parts of the Union, who will miss his familiar face. Confined to his room for several weeks past, he gradually faded away, surrounded by his family and friends, and in the possession of his faculties up to the day of his death, when, after several hours of quiet unconsciousness, his spirit passed away with the setting sun, as gently as an infant sinks to rest.

COTTON IN SAN SALVADOR.

A correspondent of the San Francisco *Bulletin* furnishes that paper with a letter written by H. G. Foote, H. B. M. Consul at San Salvador, upon the resources of that Republic. Mr. Foote has long resided in the State, and is engaged in raising cotton and coffee, as well as in attending to the interests of Great Britain. We extract that portion of the letter which relates to cotton growing:—

I am planting according to my capital, slowly and surely, both coffee and cotton. The cotton of this country is of a beautiful fiber, short staple, and as fine as silk. In no part of the world have I seen such a fine staple as that in a parcel grown near Izalco. My own small crop is not a bad specimen, although grown between my coffee trees. On some of the shrubs I counted ninety to one hundred bolls.

The climate is peculiarly adapted to cotton planting. We plant in August. From the time of planting until the boll is formed and ready to burst, we have warm gentle showers, and only occasionally heavy ones; but having intervals of sun, the rains never drown or injure the plant. This continues until about the end of the month of November, when the rains cease altogether, the boll bursts, and the cotton shows itself, fine, white, and unsullied. Nature has done all for Central America—man, nothing as yet—but it is impossible that a country so blessed in climate and productiveness, can remain much longer unknown to the world.

IMPROVED PRINTING PROCESS.

M. Chevalier, of Paris, is the author of an invention which has for its object to obtain printing surfaces as a substitute for lithography and other similar methods of printing, the use of which, besides being cheaper than lithographic printing, offers this advantage, that a design consisting of a number of different colors can be printed at one and the same time. In carrying out this invention, any suitable permeable substance or fabric is taken—or it may be a reticulated metal surface, or metallic plate or sheet, perforated with minute holes to impart the required degree of permeability, and on this surface are drawn or written the desired characters in an ink composed of lamp black, Indian ink, gum, sugar, and salt. A coat of this ink being applied to the permeable substance in the form of the design required, the permeable substance is next coated with a thin coating or film of gutta percha or of gelatinous material, covering the whole; when this coating is dry, the fabric is washed. The gutta percha or gelatinous material, at that part where it comes in contact with the permeable material, adheres firmly thereto; but at those parts covered by the ink it has no such adhesion, and simply holds to the ink design. The ink, being really soluble in water, is removed in the washing, and carries away the gutta percha covering it; thus the design drawn upon the permeable material becomes the only pervious part remaining in the surface. The back part of the fabric is then coated with the ink or colors required to be printed, and the ink or color having been applied, the impression is taken from the face of the fabric or substance by pressure in a suitable press; the paper or surface to be printed being placed in contact with the face of the fabric, the ink or color passes through the pervious part, and is in this manner applied and printed on the paper or other surface required.

MEANS OF PRESERVING TIMBER.

Oils are preservatives of wood, as is evidenced in the case of whaling ships, which seem to be proof against decay. Hot oil has been experimented with in impregnating wood, but while it rendered it more durable, it injured the tenacity of the fibers. From the well known preservative nature of arsenic, it would be effectual for preserving timber, but its use is attended with much danger. Timber impregnated with a solution of tannin is rendered preservative, by the tannin combining with the albumen, and forming an insoluble compound, in the same manner that leather is produced by the combination of the tannin with the gelatin of skins. Creosote is an excellent preservative of wood, and the efficacy of common tar, for this purpose, is attributed to the creosote it contains. The boiling of timber in wood tar, renders it highly preservative, but it impares its strength. About two gallons of creosote to every one hundred gallons of water, makes a sufficiently strong solution for use. Burnett's process for preserving wood consists in the use of a chloride of zinc solution—one pound to every five gallons of water, and is applied in the same manner as the corrosive sublimate. For ship timber it is much superior to the corrosive sublimate, because the compound it forms with the albumen of the wood is insoluble in salt water, which is not the case with the mercury compound. The chloride of zinc and the sulphate of copper are the most simple considering the cost. Shingles for roofs of houses, boiled in a solution of the sulphate of copper or pure salt, will last many years longer than they otherwise would.

SELF-CONTROL.

A merchant in London had a dispute with a Quaker respecting the settlement of an account. The merchant was determined to bring the account into court, a proceeding which the Quaker earnestly deprecated, using every argument in his power to convince the merchant of his error; but the latter was inflexible. Desirous to make a last effort, the Quaker called at his house one morning, and inquired of the servant if his master was at home. The merchant hearing the inquiry, and knowing the voice, called out from the top of the stairs, "Tell the rascal I am not at home." The Quaker looking up to him calmly said, "Well, friend, God put thee in a better mind." The merchant, struck afterwards with the meekness of the reply, and having more deliberately investigated the matter, became convinced that the Quaker was right, and that he was wrong. He requested to see him, and after acknowledging his error, he said, "I have one question to ask you. How were you able, with such patience, on various occasions, to bear my abuse?" "Friend," replied the Quaker, "I will tell thee. I was naturally as hot and violent as thou art. I knew that to indulge this temper was sinful; and I found it was imprudent. I observed that men in a passion always spoke loud; and I thought if I could control my voice, I should repress my passion. I have, therefore, made it a rule never to let my voice rise above a certain key; and by a careful observance of this rule, I have, by the blessing of God, entirely mastered my natural temper." The Quaker reasoned philosophically, and the merchant, as every one else may do, benefited by his example.

THE McDONOUGH'S ESTATE.

The commissioners of this estate have made a full and final report of their administration, from which it appears that the law expenses, ordinary and extraordinary, and the regular salaries of the management, (about $23,000,) amounted to more than $45,000 during the last year. Two sums of $12,534 09 each have been paid to the Orphan Boys' Society and the American Colonization Society, as legatees under McDonough's will. There is appended to the report an inventory of the real estate of McDonough, as it stood on the 31st of December last. The aggregate is as follows:—City of New Orleans, $1,199,565; county parishes, $890,859 59; total, $2,090,424 59. The slave property is stated at $30,000; the properties of the Orleans Theater at $16,000, which, with book debts and small claims, and the cash, make further assets to the amount of about $150,000.

IRISH ENCUMBERED ESTATES COURT.

The business in the Encumbered Estates Court of late has been considerable. There are ten conditional and eight absolute orders, and among the petitions is one in the matter of William Rathbone for an estate in the city and county of Dublin, £1,237 per annum. The following is an extract from Mr. Ormsby's statistical account, showing the sales in each year since the court commenced, in each case up to 1st August:—

1850	£1,672,000	1854	£1,736,000
1851	3,172,000	1855	2,451,000
1852	3,222,000	1856	1,934,000
1853	3,207,000	1857	2,073,000
Total			£19,476,000

THE FORTUNES OF THE ANCIENTS.

Crœsus possessed in landed property a fortune equal to £1,700,000, besides a large amount of money, slaves, and furniture, which amounted to an equal sum. He used to say that a citizen who had not a sufficient sum to support an army or a legion, did not deserve the title of a rich man. The philosopher Seneca had a fortune of £3,500,000. Tiberias, at his death, left £29,624,000, which Caligula spent in twelve months. Vespasian, on ascending the throne, estimated all the expenses of the State at £35,000,000. The debts of Milo amounted to £600,000. Cæsar, before he entered upon any office, owed £2,995,000. He had purchased the friendship of Corio for £500, and that of Lucius Paulus for £300,000. At the time of the assassination of Julius Cæsar, Anthony was in debt to the amount of £3,000,000; he owed this sum on the ides of March, and it was paid by the kalends of April; he squandered £147,000,000. Appius squandered in debauchery £500,000, and finding, on the examination of the state of his affairs, that he had only £80,000, poisoned himself because he considered that sum insufficient for his maintenance. Cæsar gave Satulla, the mother of Brutus, a pearl of the value of £10,000. Cleopatra, at an entertainment she gave to Anthony, dissolved in vinegar a pearl worth £80, and he swallowed it.

THE AMERICAN MERCHANT.

The American merchant is a type of a restless, adventurous, onward-going race of people. He sends his merchandise all over the earth; stocks every market; makes wants that he may supply them; covers the New Zealander with southern cotton woven in northern looms; builds blocks of stores in the Sandwich Islands; swaps with the Feejee cannibal; sends the whale-ship among the icebergs of the poles, or to wander in solitary seas, till the log-book tells the tedious sameness of years, and boys become men; gives the ice of the northern winter to the torrid zone; piles up Fresh Pond on the banks of the Hooghly; gladdens the sunny savannahs of the dreamy South; and makes life tolerable in the bungalow of an India jungle. The lakes of New England awake to life by the rivers of the sultry east, and the antipodes of the earth come in contact at this "meeting of the waters." The white canvas of the American ship glances in every nook of every ocean. Scarcely has the slightest intimation come of some unknown, obscure corner of a remote sea, when the captain is consulting his charts, in full career for the *terra incognita*.

BRUSSELS LACE.

The spinning of the fine thread used for lace-making in the Netherlands is an operation demanding so high a degree of exquisite skill, minute manipulation, and vigilant attention, that it appears impossible that it can ever be taken from human hands by machinery. None but Belgian fingers are skilled in this art. The very finest sort of this thread is made in Brussels, in damp underground cellars, for it is so extremely delicate that it is liable to break by contact with the dry air above ground; and it is obtained in good condition only when made and kept in a humid, subterraneous atmosphere. There are numbers of old Belgian thread-makers who, like spiders, have passed the best part of their lives spinning in cellars. This sort of occupation naturally has an injurious effect on the health, and the eye-sight of the operatives is impaired at an early age.

THE BOOK TRADE.

1.—*Abridgment of the Debates in Congress from* 1789 *to* 1856. By THOMAS H. BENTON, author of "Thirty Years' View." Vol vii., 8vo., pp. 796. New York: D. Appleton & Co.

Thomas H. Benton is dead, but his indefatigable industry still survives in the literary souvenirs he has left his countrymen. This work, as well as his "Thirty Years' View," must prove of inestimable value to the statesman. The present volume commences with the debates of the session of 1820, and terminates with those of 1824, comprising the period when those knotty questions, the admission of Missouri, and the citizenship of free persons of color, the amendment to the Constitution, the Bankrupt and the Tariff bills, were before that body. This work, when complete, will condense in about fifteen volumes what before has been contained in over one hundred, and stripped, as these reports are, of all those superfluities which embrace so many pages of the original reports, giving only the strong and pertinent arguments, and the stirring eloquence of the controlling minds of the nation, they present in a conveneint form the wisdom, learning, and philosophy of the American mind, and for this succinctness must become the text-book of the statesman and politician.

2.—*Select Discourses*, by Adolphe Monod, Krummacher, Tholuck, and Julius Muller, translated from the French and German, with biographical notices, and Dr. Monod's celebrated lecture on the Delivery of Sermons. By Rev. H. C. FISH and D. W. POOR, D. D. 1 vol., 12mo., pp. 408. New York: Sheldon, Blakeman & Co.

The object in the preparation and publication of this volume has been to render accessible to Christian readers generally, some of the rich literary and religious treasures which lie hidden in the writings of the good and great men here represented. Several of the discourses here presented have long had the reputation in Europe of being among the chefs-d'œuvre of their respective authors. This is true, for example, of the two of Dr. Monod on Woman, which we commend to all those who would seek in the church the curtains of the theater, or who question the divine mission laid out for woman by the Creator in fixing the destinies of his creatures. Let those who would with impunity depart from this divine arrangement—that modern school of the philosophers who would set aside the injunction given by that good man, St. Paul, who holds up as the greatest ornaments of woman a meek and quiet spirit, instead of plaited hair and the wearing of gold, as fit only to be seen in high places, losing her natural and legitimate influence in pursuit of one factitious and usurped—ponder well the things here laid down, which will be found so many useful lessons. Yet accuse us not of slandering woman. She is a priceless gift, and her heart, if the essence of holiness is love, is the richest treasure upon earth; yet at times, looking out upon the highways and byways of life, one is oftentimes tempted to think that instead of the help-meet designed by God for man, she has become a snare for him.

3.—*A Handy Book on Property Law;* in a series of letters by LORD ST. LEONARDS. From the fifth London edition. 12mo., pp. 216. New York: D. Appleton & Co.

This useful little work has been got up to act as an assistant for those who are in the habit of exercising their own judgment on legal points, and for those who neither find it convenient or profitable at all times to employ a solicitor. The work is an English one, but the difference between English and American laws bearing on property will not be found to differ so materially as to preclude its being of great practical utility here.

4.—*The History of Minnesota*, from the French Explorations to the present time. By EDWARD DUFFIELD NEILL, Secretary of the Minnesota Historical Society. 1 vol., 8vo., pp. 628. Philadelphia: J. B. Lippincott & Co.

Minnesota, so long the hunting ground of the roving Indian, and the rendezvous of the trapper and fur trader, has found a historian in Mr. Neill, and assumed an importance of late, commensurate with its geographical position and inherent resources; and we have before us the large handsome volume just published by Messrs. Lippincott & Co., which is a complete history of the State, from the first explorations of the French to the present time, embracing all of civil and political interest that has transpired during its territorial organization The author, in getting up this history, has had full recourse to the works of La Harpe, Hennepin, Charleroix, and also to those living missionaries Messrs. Pond, Riggs, and Williamson, whose years of toil for the welfare of the Dahkota nation need no comment, and the work will be found, in its main features, reliable. No region of our country possesses more interest, as a field for settlement, than this. Its laughing waterfalls, grand scenery, productive soil, and bracing atmosphere, have been extolled, and justly so, by all who have visited this region; and Professor Maury, in speaking of the atmosphere of this favored clime, says:—"At the small hours of the night, at dewy eve and early morn, I have looked out with wonder, love, and admiration upon the steel blue sky of Minnesota, set with diamonds, and sparkling with brilliants of purest ray. The stillness of your small hours is sublime. I feel constrained, as I gaze and admire, to hold my breath, lest the eloquent silence of the night should be broken by the reverberations of the sound, from the seemingly solid but airy vault above." Those blooming prairies, leaping waterfalls, and crystaline lakes, we know them well, and often have we ourselves, wearied with the long day's march, with high gusto tossed our slap-jacks over the burning faggots of the camp-fire, and wrapping ourselves in our blanket lay down to dream, with the quivering firelight flashing on our swarthy cheek. Yes, Minnesota, land of the Dahkota, we know thee well, and thy name comes to us resonant with many a privation and wild adventure, which, however mercurial in temperament and given to jollity, however sweet to dwell on now, we care never to experience again.

5.—*A Plea for the Indians*, with Facts and Features of the late war in Oregon. New York: John Beeson, 15 Laight-street.

This little book, the writer says, has not been written either for honor or wealth, but with the view of laying bare some of the abuses practiced upon that poor unfortunate class—the red man of the West. That his statements are in main true, we know full well, having ourselves mingled somewhat with the aborigines. It is no wonder the mind of the Indian associates the faults and bad faith of the white man with something akin to revenge, when he looks upon his home which has been usurped, without the least interest taken in his temporal welfare, but to devise some new means to get possession of his heritage and birthright. It is time that something was doing for the Indian, more than civilization has yet done—following his trail like a sleuth hound, by extending to him the immunities of our own system—and by enlightening his mind with the hope of the Christian, in lieu of the only two principles now in possession of his benighted mind—love for his friends, and hatred for his foes.

6.—*Ursula*; a Tale of Country Life. By the author of "Amy Herbert," "Ivors," etc., etc. 2 vols., 12mo., pp. 312, 314. New York: D. Appleton & Co.

This seems to be a jotting down of the transactions of each day and year as they came up before the mind of the fair authoress, the scene of which is laid in merry England, and is a bright and fair picture of English country life, and the light which is wont to surround old English hearthstones. It is written in an attractive style—playful, yet exhibiting much thought, and contains a moral which we should be glad oftener to be able to trace in works of the same sort. It comprises two handsomely bound volumes, that are well worthy a place on our tables.

7.—*North America,* its Agriculture and Climate, containing observations on the Agriculture and Climate of Canada, the United States, and the Island of Cuba. By ROBERT RUSSELL, of Kilwhiss. 8vo., pp. 390. Edinburgh: Adam & Charles Black.

This book, the production of an English gentleman who made the tour of this country and Canada for the purpose of obtaining some knowledge as to the general features of the country, and its capacities as an agricultural region, will be found generally accurate in its more important features, as to the climate, meteorological observations, &c., of North America, and is free from those asperities usually exhibited by English authors when speaking of anything connected with this country, though the disadvantages under which a stranger always labors on a mission like this, subject, as he is, to the ignorance or design of his informants in many of the smaller matters connected with his work, are apparent in some portions of it. Take, for instance, his expense account of the cost of the State House at Columbus, Ohio, which he puts down at £400,000, equal to $2,000,000! We don't know, not having the contracts for that superstructure at our finger ends, but this seems to us a pretty broad estimate, Mr. Russell. The book is a good representation of the English press of the present day, with its broad margins and clear impressions, standing out in bold relief on the snowy paper, which enables one so readily to pick out an English book wherever he may find it.

8.—*The History and Antiquities of the City of St. Augustine, Florida,* founded A.D., 1565, comprising some of the most interesting portions of the early history of Florida. By GEORGE R. FAIRBANKS, President of the Florida Historical Society. 8vo., pp. 200. New York: Charles B. Norton.

This volume, relating to the history and antiquities of the oldest settlement in the United States, has grown out of a lecture delivered by the author, which he was desirous to embody in a more permanent form. About this old city, the first settlement of the white man in this confederacy by more than forty years, there clings a host of historic associations, which throw around it a charm which few can fail to feel. Here it was that the civilization of the Old World first set its foot, and this now insignificant town was once the key of an empire, boasting its vice-provincial court, its adelantados and brave men at arms—the seat of scheming, plotting ambition, while its moss-grown streets, around which now pervades but a dreamy silence, once gave back the sounds of wassail or of strife. There is no more historic ground in the country than this, and the scholarly style of the author renders the book well worth a perusal.

9.—*Mrs. Hale's New Cook-Book:* a Practical System for Private Families in Town and Country; with directions for Carving and arranging the Table for Parties, etc.; also, preparations of Food for Invalids and Children. By Mrs. SARAH J. HALE. 12mo., pp. 516. Philadelphia: T. B. Peterson & Bros.

Some one has said that next to having something to eat is having it cooked in a style fit to be eaten, and so says our palate; and if there is a subject upon which American ladies, as a general thing, need instruction, it is in the art of cookery, and the preparation for the table of dishes suitable for the palate and digestive organs. The book is a complete thing in its way, containing over a thousand recipes, illustrated with numerous engravings, and containing a complete index and list of contents to everything contained in the work, whereby any person can turn to anything they may wish to see at all in an instant, without a moment's loss of time hunting for it. Every family should possess a copy, and study it, too.

10.—*A Manual of Obstetrics.* By THOMAS COCK, M. D., Physician to the New York Lying-in Asylum, Physician to Bellevue Hospital, &c. New York: S. S. & W. Wood.

This is a book of singular merit, inasmuch as it contains all that is useful on the subject of which it treats, and nothing of the controversial matter usually served up in larger books on the same subject.

11.—*Father Henson's Story of his own Life*, with an introduction by MRS. H. B. STOWE. 12mo., pp. 212. Boston: John P. Jewett & Co.

Another anti-slavery book this, and among all the singular and interesting records to which that peculiar institution—slavery—has given rise, we have seen none more orthodox than this, and, judging from the cursory examination we have been able to bestow upon it, we should say it is sufficiently colored to suit all—even the in-goers at Exeter Hall and other high places. Ye of morbid sensibility, who look after everything pertaining to the slave, who would become sufficiently alive to the sufferings of the poor African, toiling half naked on malarious marshes, under a burning, maddening sun, poisoned by swarms of musquitoes and black gnats, who are said to look to death as their only deliverance, let them read this book, and see if we are not justified when we call it orthodox and true of faith. To us it seems but a recital of lacerations, which hang over its pages like a funeral pall, as if groans and sobs evidently designed to reach even the holy of holies. Verily, Father Henson's experience has been a hard one. The design of the work is good, having for its purpose, as indicated in the introduction of Mrs. Stowe, the redeeming from slavery of a beloved brother, and as such we wish it success.

12.—*The Para Papers*, on France, Egypt, and Ethiopia. By GEORGE LEIGHTON DITSON, author of "Circassia, or a Tour to the Caucasus," "Crimora," etc. 8vo., pp. 496. New York: Mason Brothers.

There is, quoting the author's own language, a gentle, beguiling spirit, which accompanies us "like the memory of our mother's songs" in our ramblings over the earth, which is supposed to woo and entice us by a soft, silvery silence—to call to us in the breeze, beckon from the mountain tops, and whisper from the waters that glide sparkling seaward; and there have been some sage dames and old seers who gravely affirmed, that he who once inclines an ear to its tender tones, wanders henceforth hither and thither, happy though homeless. In this we believe the author is right, and there will be found for all voyagers much food for thought in what he says on this subject. The author does not pretend to have made any new discoveries in his gyrations, or to have seen any more than travelers usually see, or to have performed any wonderful feats, but gives it to the public as a narrative of things as he found and saw them, draped in his own language, which, by the way, is both graceful and flowing, lending to it far more than the ordinary interest attached to such books.

13.—*Mary Derwent.* By Mrs. ANN S. STEPHENS, author of "Fashion and Famine," "The Old Homestead," etc., etc. 12mo., pp. 408. Philadelphia: T. B. Peterson & Co.

We had thought that the classic and historic ground of the Wyoming Valley had been used up and abandoned by both poet and prose writer, until this last production of Mrs. Stephens, but it seems to have lost none of its old interest under her graphic pen. Mrs. Stephens is a powerful writer indeed, and though her characters are full and apt to be overdrawn, her wondrous power of description leads one along dreamily, musing over her fancies, till a strange interest attaches itself to her narrative, and we become almost lost in idealities. Such is the case in reading Mary Derwent, and if one would shake off the dust of life, and commune for a little while with the high things of nature, let them read the few first chapters of this admirable story.

14.—*Adulterations of Various Substances used in Medicine and the Arts*, with the means of detecting them. By LEWIS C. BECK, M. D. New York: S. S. & W. Wood.

This has become a necessary hand-book for the physician, apothecary, and artisan, while it is of far greater utility to every one than the title-page promises, for it is quite as useful to the housekeeper, cook, and tradesman, as to those for whom the author tells us it was particularly intended. The simple means herein contained for detecting the adulterations of food, as well as medicines and artists' materials, are such as should commend the book to all classes in the community.

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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

AUGUST, 1858.

Art. I.—THE MANUFACTURE, TRADE, AND CONSUMPTION OF TOBACCO.

HISTORICAL AND STATISTICAL ACCOUNT OF THE MANUFACTURE, TRADE, AND CONSUMPTION OF TOBACCO IN THE AUSTRIAN EMPIRE, UNDER THE OPERATION OF THE GOVERNMENT MONOPOLY SYSTEM, FROM THE PERIOD WHEN THE MONOPOLY BY GOVERNMENT WAS EXTENDED OVER THE WHOLE OF THE AUSTRIAN DOMINIONS—FROM THE ARCHIVES OF THE AUSTRIAN TOBACCO DEPARTMENT—FROM THE COMPILATION OF BARON VON PLENKER, CHIEF DIRECTOR OF THE IMPERIAL TOBACCO MANUFACTORIES OF AUSTRIA, COUNSELOR OF STATE, KNIGHT OF THE ORDER OF THE IRON CROWN, KNIGHT COMMANDER OF THE PAPAL ORDER OF GREGORY, ETC, ETC.

[The following interesting details and statistics, in relation to the trade and manufacture of tobacco in the dominions of Austria, not only deserve attention on account of the interest and novelty of the valuable information communicated, but also a new and important question is hereby opened to the view of the statesman, and to the inquiry of the political economist. The trade in tobacco is co-extensive with the use of the plant, and its use, as is well known, extends over the whole civilized world. The number of persons employed in the preparation and manufacture of the plant, if we commence with the capital and hands employed agriculturally in its first production, and carry our inquiries up to the last stage of its progress to the hands of the consumer, when it is dealt out by the ounce or the half-ounce to the retail customer, must be immense, and is perhaps greater than would be credited. In the United States and in England, and perhaps in all other countries of any extent, except in Austria, France, Spain, Portugal, and the Italian States, the trade in tobacco is free and open to every one who has the capital and means to embark in it. It becomes, therefore, a question of national importance—a question well deserving a strict and deliberate inquiry—which of the two systems is the best; whether greater advantages result to the public from the free and open trade as it is carried on in the United States and in England, or whether the assumption of the whole business, both of the manufacture and sale of tobacco, by the government, is the better system? This is a

question both novel and important, and is strongly presented and suggested by the following interesting information of the trade as carried on by the government exclusively. We do not mean, of course, to say that this question is propounded, or even adverted to, in the following history of the Austrian Monopoly, but we mean to say that after perusing the account of the trade and its results during many years in the dominions of Austria, the serious question must naturally be suggested to the intelligent reader, whether in our own country the Austrian system would not be much better than the free English system? Would not the public generally be spared a vast amount of direct and indirect taxation by collecting a large revenue from tobacco, instead of raising it by taxation? It is almost certain that if it be supposed that the State of New York, for example, were to take the manufacture and sale of tobacco into its own hands, the revenue derived from the trade would more than half defray the ordinary and extraordinary annual expenditures of the government; the people in the meantime would be benefited in a variety of ways—1st. They would be relieved from a very considerable amount of other direct and more onerous taxation. 2d. Not only the same number of persons and hands would be employed and obtain their livelihood by the trade, as now, but even a greater number would be employed. 3d. The article manufactured and sold would be of better quality, and consequently its use would be extended, etc., etc. This question and the inquiries it would lead to, as a mere matter of curiosity, is full of interest, and indeed it might at some future period become a subject of serious deliberation; for the spirit of the American people is essentially adverse to every system of direct taxation, and, at the same time, there is no system of indirect taxation so simple, light, and imperceptible as the system the results of which are given in the following pages. Before we form, however, any opinion on the subject of the comparative benefits and disadvantages of the two systems, it will be well first to make ourselves perfectly well acquainted with the subject. The following general and statistical account of the trade in tobacco, as carried on exclusively by the Austrian government as a system of indirect taxation, will throw much light on the subject. This is the first authentic history of the governmental monopoly of the tobacco trade which has appeared in this country, and we might even say in Europe; for hitherto France and Austria have not made known the details of this trade. The public generally in Europe know nothing more upon the subject than the too simple facts that the governments referred to derive a large revenue from their assumption into the hands of government of the manufacture and sale of tobacco, and the fact that they (the people) are supplied with a good and cheap article. On the other hand, in England, where the manufacture and trade is open and free to every speculator, all that is known is that the people are supplied with an article of necessary consumption, both very inferior in quality and very high in price. The following interesting details of the results of the governmental system have been obtained from official sources, from the Archives of the Austrian Tobacco Department, as compiled and published by M. Von Plenker, a gentleman high in rank in the Austrian Bureau, of whose rare work only two copies exist in the United States, viz., one in the Treasury Department in Washington, and the other in the private library of Ch. F. Loosey, Esq., the worthy and estimable Consul-General of Austria, at New York.]

Among all the various products which form articles of consumption by the human family, and which are luxuries and superfluities, rather than necessities of life, (not being indispensable for the nourishment or sustenance of the body,) there is none which has become so wide-spread and universal in its use as tobacco. It is grown in every part of the world, and is used by every race and nation of the globe.

Having first become known to Europe by the discovery of America, it soon became extensively used among Europeans; but strange as it may appear it met with opposition, and it may be said with persecution, both from ecclesiastical and secular powers—impediment such as has never befallen any other object of physical use and consumption. The severest punishments, however, which were enacted against those who used it, were unable to prevent its rapid spread, nor diminish its extensive use in every country of Europe, from North to South and from West to East. Even those governments which had been the foremost in enacting the severest penalties against its use soon found themselves willing to derive profits and revenue from the heavy duties imposed upon the persecuted weed.

In the first half of the seventeenth century tobacco had already become an article of government monopoly in several States. This monopoly was first established in England in the year 1625, by Charles I., but shortly afterwards, in the time of the Cromwellian civil wars, the royal system of monopoly was abolished in that country, and the trade and manufacture was left free and open to any who wished to engage in it. A heavy duty upon the article was then substituted in place of the State monopoly.

In 1657, tobacco was made a government monopoly at Venice, and about the same time in the Papal States. Portugal adopted the same policy in 1664, and then France in 1674, Spain in 1730, and Mexico in 1764, Tuscany in 1737, Sardinia at the beginning of the eighteenth century, and Austria took into its own hands the monopoly of the manufacture and sale of tobacco in 1670.

At the present day tobacco is an object of government monopoly in thirteen of the States of Europe, viz.:—

	With a population of		With a population of
1. In Austria	38,405,000	8. In Portugal	3,500,000
2. In France	35,782,000	9. In Tuscany	1,816,000
3. In Spain	14,300,000	10. In Modena	586,000
4. In Sicily	8,500,000	11. In Parma	508,000
5. In Sardinia	5,020,000	12. In San Marino	7,000
6. In Poland	4,860,000	13. In Lichtenstein	6,000
7. In the Papal States	3,700,000		

The aggregate population which is supplied with the article of tobacco in all its forms of manufacture, by their respective governments, amounts to 116,297,000 souls, being 43.7 per cent of the entire population of Europe.

In all the other States of Europe tobacco is subjected to a heavy taxation, both direct and indirect, and a very considerable revenue is thus obtained from it by all of them.

When we reflect upon the immense increase in the use of tobacco within the last ten years, both in Europe and America, and that its consumption goes on increasing in every State of Europe, the subject of to-

bacco is one which deserves the consideration and attention of every government and country, both in respect to its cultivation and to its use.

There is, in fact, no other object of general consumption more fitted for indirect taxation than tobacco, nor any which brings in so large a revenue with so little perceptible inconvenience to the consumer. This is a great advantage, of which statesmen are enabled to avail themselves for increasing the national revenue. The statistical accounts of the produce of the tobacco monopoly in the Austrian Empire afford abundant evidence of the fact that there is no other branch of revenue so productive as that of tobacco.

On the 29th of November, 1850, the Austrian tobacco monopoly was extended by Imperial Decree over Hungary, the military frontiers, and the coast districts, and went into effect on the 1st of March, 1850. By this measure the operation of the Austrian Imperial Tobacco Monopoly was extended over an additional extent of territory of 5,855 square geographical miles, containing a population of above fourteen millions of souls. The monopoly has, therefore, since then, been extended over all the lands and counties subject to the Austrian crown.

The introduction of the governmental tobacco monopoly into the kingdom of Hungary met with great opposition at first in several quarters. It was even said by a great number of persons that the measure was altogether impracticable, and that it could not be carried out successfully. The result, however, has proved that the difficulties were not so great as had been imagined. The system is now thoroughly established, and is in the most flourishing condition.

The principles applied by the government in relation to the compensation paid to the persons previously engaged in the trade and manufacture of tobacco, were such as exercised a very important influence in removing the difficulties which had been apprehended.

By the terms of the Imperial Decree of November 29th, 1850, those persons who held a stock of unmanufactured tobacco, as also all the manufacturers of tobacco, were at liberty either to sell their tobacco to the Imperial treasury within a specified time, at fair prices to be agreed upon, or on the other hand they were left at liberty to export their stock on hand to foreign countries. It was also furthermore provided, that those persons who could prove that they had, for at least five years, been regularly engaged in the tobacco business, should receive a compensation for their business, either in a yearly rent to be paid to them, or in the immediate payment of a fixed sum, or by other methods, according to the average net profits of their business. Others received compensation by being appointed to situations in the financial or other departments of the State Tobacco Manufactory. When the Imperial monopoly went into operation the stocks of every description in the hands of dealers were purchased by the treasury of the Imperial monopoly. The stock of raw tobacco in the hands of the manufacturers was paid for according to the price at which it had been purchased by them, with the addition of six per cent upon the cost price, reckoned from the day when the purchase had been made to the day of payment. Manufactured tobacco, in a state ready for sale, was paid for at the price which appeared by the tradesman's own books, to afford the same profit at wholesale prices which he had calculated upon.

According to these regulations, and on these principles, the sum of

1,942,508 florins was paid to the several manufacturers of, and dealers in, tobacco in Hungary, for tobacco amounting in the whole to 80,817 (cwt.,) of various kinds of tobacco, including cigars and snuff, as well as smoking tobacco.

Sixty persons received an indemnification by way of compensation for the loss of their business. Thirty-seven persons received a yearly rent on the same account, amounting in the whole to the sum of 35,600 florins. Sixteen persons received compensation in one capital sum paid to them at once in full, which amounted in the whole to the sum of 241,500 florins. Eighteen persons received situations in the Imperial manufactories and tobacco warehouses, with a yearly salary amounting to the sum of 21,159 florins. Six persons were paid 9,760 florins for the worth or good will of their business. An equal number of small dealers or manufacturers received employment, or obtained situations, in the different districts connected with the tobacco department.

Before the introduction of the State monopoly into Hungary a great number of persons were engaged in the tobacco business on their own individual account in a small way. There were, properly speaking, very few large manufactories; only one of these, viz., the manufactory of Fuchs, Phillips & Co., was of such an extent as to be fit to be at once converted into one of the smaller Imperial manufactories. All the other Imperial manufactories were obliged to be built and erected by the State, with the exception of the State manufactory of Temesvar, which was established before the full introduction of the monopoly into Hungary.

Every little dealer and tobacco leaf cutter was in the habit of having the tobacco leaf cut either at home or at some manufactory. Men who only employed from five to ten woman in the making of cigars dignified themselves with the title of manufacturers. The tobacco manufactory in general was in a very poor condition in Hungary before the introduction of the State monopoly, and tobacco sold at higher prices than it is sold at now from the State warehouses. Notwithstanding the opposition at first made to the State Monopoly, the consumers are gratified with the change, and show their appreciation by an increased consumption of tobacco.

OF THE CULTURE OF TOBACCO, AND OF THE RECEPTION AND PAYMENT FOR THE CROP.

The cultivation and raising of tobacco in the Austrian States is subjected to certain restrictions, which are regulated according to the requirements of the Tobacco Monopoly Department. Tobacco can be grown only by farmers or land-possessors with the permission of the State authorities. The whole tobacco crop is required to be delivered up at the State tobacco warehouses at a fixed price, which, varying according to the different qualities of the leaf, has been fixed and published three years before, during which period the fixed price under no circumstance is ever lowered.

Even under these restrictions, however, the cultivation of tobacco is not generally permitted in any and in every part of the empire, but the permission to grow it is limited to certain special districts peculiarly adapted for the growth of the plant. These districts are situated in Hungary, and in Galicia, in the Tyrol, and in the Brenta, in the kingdom of Venice.

In South Tyrol, the cultivation is limited to the small amount of 3,000 or 4,000 centners of ordinary tobacco, and to about 4,000 or 6,000 centners of fine-scented leaf for snuff, which possesses a peculiar aroma, and grows only in those parts.

The permits for raising tobacco in the above places are issued every year, being regulated by the running wants of the Department, by which limitation the growth of an excessive and unnecessary quantity is prevented, even in seasons when the yield is most favorable. These permits are given in the above mentioned countries, not as in Hungary and Galicia, covering a certain number of acres, and a distinct area of land, but they limit the grower to the raising of a fixed number of plants.

In the Tyrol a peculiar practice is pursued at the receiving warehouses, which depends upon the handling which the leaves are obliged to undergo, on account of the special uses for which they are destined. The leaves of the plant in their green state, just as they have been broken off from the stem, are carried at once from the field to the receiving magazine. The subsequent management of them, which in that country is called the maceration, is undertaken by the State manufactory at Sacco, which is located in the center of the tobacco-raising country, or it is committed to the care of special hired macerators or tobacco steepers.

A greater extent of territory is allowed for the raising of tobacco in Galicia, where the chief production is in the eastern part of the province, viz., in the Tarnopoler, Brzezaner, Czortkower, Stanislauer, Kolomear districts.

During the last six years the planting of tobacco in Galicia has occupied from 3,000 to 6,000 acres (joche) of 1,600 square klafters each, which employed from 31,000 to 36,000 planters.

From this it will appear that the culture of tobacco in Galicia is, for the most part, only pursued by the small landholders.

Galicia produces two sorts of tobacco leaf, which differ greatly from each other in quality, and are used for quite different purposes. One of these sorts, which is called Zabruther, or the original Galician leaf, is the original tobacco plant which was first raised in Galicia. This plant only succeeds in the environs of the Pruth and Dniester under particular conditions of soil. This leaf is used for the well known and favorite snuff of Galicia, and it possesses that peculiar aroma by which the Galicia snuff of the Imperial manufacture is distinguished. This tobacco leaf is esteemed of great value in the Imperial manufactory, as it is used for the manufacture of the most esteemed and favorite kind of snuff, and because its peculiar aroma is proper to the leaf itself, and cannot be supplied by art, or by any other kind of tobacco leaf.

The constantly increasing use of this snuff has led quite recently to a more extended cultivation of the plant in Bucowina, and on the banks of the Pruth. The plants, however, of this kind, when grown upon a light, sandy soil, are not suited for the manufacture of snuff, and therefore are only used for the manufacture of an inferior sort of smoking tobacco.

The second sort of tobacco leaf raised in Galicia has been produced from the seed of the best kind of Hungarian tobacco; the seed is brought every year from Hungary, and is given out *gratis* by the Imperial manufactory department to the Galician tobacco grower according to his requirements.

Trials have lately been made in Galicia with foreign tobacco seed, es-

pecially with the Dutch, the Virginia, the Ohio, and Pennsylvania seeds, to improve, if possible, the culture of the plant in Galicia.

The plants raised in Galicia from foreign seeds, as well as from the Hungarian, are found excellent for the manufacture of cigars and smoking tobacco. The leaf from the foreign seed is not inferior to the Hungarian; it is fine, very elastic, of a good color, and makes excellent cigars.

No reliable statement can be made of the tobacco grown in Hungary, nor of the amount of consumption, previous to the introduction of the Imperial monopoly. Before this took place, the raising of, and the trade in, tobacco in Hungary was subject to no restrictions whatever. The Imperial manufactory was in the habit, however, of purchasing considerable quantities of the leaf from the Hungarian planters, who delivered it at the Imperial warehouses at the published fixed prices as they pleased.

Both the great as well as the small landholders in Hungary are engaged in raising tobacco, the former under quite peculiar circumstances. In a large extent of the country the small farmers raise tobacco on their own lands, with no other assistance than their own family. But the large landholders generally rent out their lands to cultivators, either for a money rent, or for a certain portion of the produce.

Sometimes a whole village, or the greater part of the people, unite together and hire large tracts of the great landlords for the purpose of raising tobacco.

Before the introduction of the monopoly into Hungary it was a common practice for the tobacco merchants to make an agreement with large companies, or a whole working community, for the tobacco to be raised by the latter. The merchants would agree upon a price to be paid for the tobacco when gathered, and, in return, made advances in money for the immediate support of the working people, and sometimes for payment of the rent to the great landowners.

But now these companies of tobacco raisers work in a similar manner for the Imperial manufactory, and are supplied with the necessary advances of money on stipulated conditions. Formerly the rent of tobacco land used to be paid in kind. From 80 to 100 pounds of tobacco leaf was the usual rent for an Hungarian acre (joch) of 1,200 klafters. The best leaf was always required to be given up for the rent, and sometimes the landowner would have the right of picking out and selecting the leaf himself for his rent.

In some places, viz., in the Banate, in the Arader, and other districts, the great landowners would let out large tracts of land to colonies of tobacco raisers for a number of years, generally from 15 to 30. Each family of the tobacco raisers received a certain quantity of land for their houses, garden, meadows, and pastures. They engaged to erect the proper and necessary buildings, and to plant a certain number of acres with tobacco. Of the tobacco raised, a fixed part—never less than the half—was paid to the landowner for his rent. Sometimes a certain weight of tobacco was agreed to be paid to the landowner, which, in unfavorable seasons, often fell out to be more than the whole crop which had been raised. Besides this, the tobacco-raising families had to pay rent either in money or in produce, and to do a certain quantity of work for the landlord, by way of rent for the other land which they required. After the expiration of the term of years agreed upon, the tobacco-raising families were required to take down their houses and carry away the materials, and place everything in

the condition in which they found it. On such occasions the landowners generally took the advantage of making a new bargain with these families on still harder conditions, to which they were generally ready to agree, not being willing to be turned adrift upon the world without means, which, under the old contract, it was not possible for them to save up. It was in this manner that most of the tobacco in Hungary was raised. In the county of Torontal, before the breaking out of the Hungarian revolution, it was calculated that the tobacco-working families amounted in number to 30,000 souls, which constituted nearly the whole native Hungarian population of that county.

In 1843, the government found itself obliged, in order to become more independent of the tobacco dealers, who also had the business of raising tobacco in their own hands, to farm out a part of the Imperial domains for the purpose of raising tobacco for the Imperial manufactories. For this purpose colonies of families were placed on various parts of these lands for the purpose of raising tobacco.

There are in Hungary tobacco planters of a singular and peculiar character. These people have no possessions nor property; they have no fixed home nor residence; they support themselves wholly by their work in raising tobacco, wandering about from place to place. This their profession of raising tobacco is kept up in their family from generation to generation. They form a kind of wandering or nomade population. They hire themselves out from year to year with their whole family. They receive from the landowner from four to five acres of tobacco land for each separate family. The landowner provides for the plowing and manuring of the land, and also gives them a few acres for the raising of vegetables and for pasture for their cattle, which generally consist of nothing more than a couple of horses, a couple of hogs, and perhaps, though very rarely, of a cow. They receive one-half of the tobacco which they raise, and pay in kind for the other land which they may cultivate. Until the tobacco harvest, and until the sale of the crop at the pay warehouses, these poor planters live on advances, either of money or food, which the landowner makes to them.

These wandering tribes of tobacco raisers are chiefly found in Solter, Szolnoker, Czongrader, and other districts in Hungary; also in Temesvarer, in the Gross, Becskereker County, and other locations in the Banate, and in Servia. There are also other companies of tobacco raisers, consisting of whole communities with their families, by whom the large domains of the great landholders are worked for the raising of tobacco.

The origin of all these tobacco-working societies and families may be traced back to the time when the Turks reigned in the Banate. When the territory became crown land of the Austrian empire, and when a division of the land was being made from 1780 to 1786, (after the Turks were driven out,) these families of tobacco planters refused to take a division of land or a settlement, but they were left in the possession of the unclaimed lands which they had occupied during the disorders of the war between the Turks and Austrians. For these lands they were required to pay, besides the tithes upon the whole of their produce, a rent of 40 kreutzers per acre of plow land, 24 kreutzers for every acre of meadow and pasture land, and 6 kreutzers for every acre of swamp land. In addition to all which they were bound to devote a certain number of acres to the cultivation of tobacco.

Among all the various circumstances, under which the culture and raising of tobacco is carried on in Hungary, there are two of them especially which operate unfavorably upon the cultivation of the plant. One of these is the taking of one-half of the whole crop by the landowners by way of rent for the use of the land. This is much too high, when it is considered what a large amount of hand labor the attention to the crop requires. It is quite too oppressive upon the planters; for the expenses of cultivation alone, in a fair and proper cultivation of the plant, are genrally, on an average of crops, equal to one-half of the whole crop. This demand, therefore, of half the crop leaves but very poor wages for the working families.

Another circumstance is, that the land parceled out to each of the working families for the raising of food, etc., is too much, as each family seldom, on an average, exceeds three or four heads; this causes an interruption to the cultivation of the tobacco. Under both of these conditions the tobacco culture suffers, and the consequence is that, where this system of cultivation is followed, the quantity of tobacco raised is less in proportion than that which is raised by the small farmers, who solely depend upon the labor of their own families to raise their little crops.

The events of the years 1848 and 1849 had exercised a highly disastrous effect upon the culture of tobacco in Hungary. The greater portion of the tobacco-growing districts became the theater of war and the field of battles. In the Banate and the Bacska, where the Hungarians and Servians were engaged against each other with all the bitterness of national hatred, whole districts of tobacco ground were laid waste and made desolate. Most of the people of these regions who were able to bear arms fell fighting on the battle field or left the country.

The necessary restrictions imposed by the Imperial monopoly were also, at its first introduction, owing to the opposition raised by the dealers and others, not calculated for a time to increase or extend the culture of the plant.

Since the perfect introduction of the new system, however, it is evident, from accurate statistics, that the cultivation of tobacco has gone on regularly, everywhere extending and increasing.

Many unfavorable circumstances, besides the weather and bad crops, have tended to retard and keep back the production of tobacco. Some of these unfavorable causes are to be found in old prejudices and customs, and partly also in the carelessness and indolence of some of the tobacco planters. These evils can only be gradually overcome by patience and perseverance, and by stimulating the planters by means of pecuniary advantages.

With this object in view, the prices paid for the best quality of tobacco at the monopoly receiving warehouses have been considerably raised at various periods. The object has been to induce the planter to pay more attention to the cultivation, by making it his interest to raise leaves of the finest quality.

Also, in order to encourage the growth of the plant, the Monopoly Bureau makes advances of money, without interest, to all the planters who ask for it, to the extent of the worth of a fourth part of their whole crop.

In the same manner liberal advances or loans are made, without interest, to those who establish new plantations on a large scale. These loans are made to such undertakers for several years in advance, on cer-

tain conditions as to the raising a fixed quantity, and putting under cultivation a certain number of acres.

The officers of the Monopoly Department are required, in the above view, to do all in their power to assist and instruct the tobacco planters, and to supply them with changes of seed, etc. Heads of corporations, and corporation notaries, who make themselves useful in aiding in the promotion of tobacco planting, receive suitable rewards for their services.

For the same purposes also, model plantations have been established, and put under the care of the servants of the monopoly, who have traveled in Holland and acquired a perfect experience in the best modes of cultivation in respect to every kind of plant, and the best method of handling and managing the leaf after its maturity.

It is intended to give a greater extension to these model plantations, in order to afford to the tobacco planters in every place the means of becoming acquainted with the best and most scientific mode of procedure, as also to educate workmen who may teach others, and thus a supply of good and competent workmen may always be at hand for the great tobacco planters on the large estates.

Next to the cultivation of tobacco, the prices paid come under consideration.

In South Tyrol, within the six years comprised between 1851 and 1856, 20,275 centners (or cwt.) of macerated or soaked tobacco leaf for snuff was raised, for which was paid by the Government Bureau to the planters and macerators the sum of 372,680 florins; which gives an average of 18.38 florins per cwt., or centner.

Out of 8,195 tobacco planters, the average production is 2.47 cwt. per individual head, and a money payment for the same to each individual of 45.47 florins.

Within the same period as above, 29,444 centners (or cwt.) of snuff leaf tobacco was raised in Brenta; for which was paid the sum of 407,273 florins.

In Galicia, within the same period of six years, the total production of leaf tobacco was 361,623 cwt.; for which was paid to the planters the sum of 3,214,623 florins.

In Hungary, within the same period of six years, the total production of leaf of all kinds was 2,564,751 cwt.; for which was paid the sum of 21,352,014 florins. The average price per cwt. in Hungary amounts to 8 florins, 13 kreutzers.

In all this period of six years, the year 1852 was the most unfavorable; in many places the crop was a total failure. The payments for tobacco in that year, for Hungarian tobacco, were, for a total production of 197,303 cwt., the sum of 1,617,199 florins.

The year of the most abundant crop was the year 1854. The total production of that year was 465,229 cwt.; the payments made for which were 3,961,951 florins.

In Croatia and Sclavonia, the production was 63,367 cwt.; for which was paid 458,041 florins.

In Transylvania, the production amounts to 55,686 cwt.; and the payments to 653,057 florins.

It remains to speak of the organization of the department, which is comprised under two divisions of the Art or Manufacture Administration Department, and the Order or Police Administration Department.

The first mentioned department has under its charge all that relates to the operation and manufactories of the Central Board of Tobacco Manufacture, and of the financial affairs relating to the same. It embraces the control and management of the tobacco plantations, of all that relates to the cultivation of the plant, of the payments made to the planters, etc. The second department relates to the management and efficiency of the Finance Department; it manages the preparation and distribution of the planting licenses or permits, the watching over the due observance of all the regulations and conditions connected with the trade, and the levying of the penalties imposed upon those who violate the Imperial monopoly.

The Hungarian crown lands are divided into six inspector and payment districts, which have their chief offices at the following places, viz., in Pest, Debreczin, Szegedin, Tolna, Temesvar, and Maros-Vasarhely. Galicia has an Inspectorship Bureau established at Zaleszczyk.

The time for purchasing and paying for the tobacco leaf commences in Hungary on the 1st of November of every year, and terminates at the end of April.

In Galicia the tobacco payments are confined to the two months of December and January of every year. Proper and skillful officers are appointed to decide upon the qualities of the tobacco, and to what class it may belong. Should the producer be dissatisfied with his decision, he can appeal to another officer, and even after that to another, and obtain a fair examination and comparison of his leaf with others.

OF THE BUSINESS DONE AT THE SEVERAL STATE MANUFACTORIES, AND OF THE QUANTITY OF MANUFACTURED ARTICLES PRODUCED, AND OF THE RAW MATERIAL EMPLOYED.

With the exception of two sorts of snuff, viz., the Paris Rappee and the Bahia Rappee, and also with the exception of Varinas-Knasters in rolls, and of Havana cigars, all the snuff and all the smoking tobacco consumed throughout the Austrian dominions are the production of the government manufactories.

In no other country in the world, where there is a monopoly by the State of the tobacco trade and manufacture, is the public supplied with such an extensive variety of all sorts and kinds of tobacco, whether for snuffing or smoking, as it is in Austria, where, ever since the gradual establishing of the monopoly in the different parts of the empire, attention has always been had to the old habits and customs, and to the peculiar requirements of the tobacco consumer.

In Austria proper, on the Enns and Salzburg, there are 25 different kinds of snuff on sale; 16 of cut and dry smoking tobacco, 4 of Cavendish or twist tobacco.

In Bohemia are manufactured and sold 23 different kinds of snuff; 16 of cut smoking tobacco, 4 of twist tobacco.

In Moravia and Silesia, 27 sorts of snuff; 16 of cut smoking tobacco, 4 of twist tobacco.

The varieties of manufactured tobacco sold in Galicia, Bucowina, Cracow, Tyrol, Dalmatia, Hungary, in the Venetian States, in Lombardy, and other parts of the Austrian empire, are equally numerous and various. Besides the great variety of tobacco manufactured by the State, thirteen different vitolas or classes of genuine imported Havana cigars are sold by the government to the consumers.

At the commencement of the year 1851, when first the State monopoly was established in Hungary, there have been seventeen State manufactories of tobacco in operation, employing 155 clerks, 216 servants, and 10,429 workmen. Of the above work people, 970 males and 6,699 females, forming a total of 7,669 persons, were employed exclusively in the manufacture of cigars.

In the year 1850 the total consumption of tobacco in the countries where the monopoly has been long established amounted to 344,575 cwt. (centners) of snuff and smoking tobacco. In this sum are included 322,443,976 cigars.

The total consumption of the whole empire in 1851, amounted to 452,175 cwt., including 476,035,140 cigars.

This great increase in consumption, which went on progressing in the countries newly subjected to the State monopoly, was such as to call for the utmost exertions to make the production correspond with the consumption. To effect this, new manufactures were established, and the old ones were enlarged and their manufacture augmented. In 1856, the number of persons employed in the manufacture of tobacco had increased to 258 clerks, 312 servants, and 18,658 workmen and women.

Machines are employed in all the manufactories; in some of them the machinery is set in motion by steam; in others, viz., in the Sacco, the Schwaz, and the Lombardy manufactories, water is the moving power.

The manufacture of cigars is performed wholly by hand; but in some manufactories, within the last year, successful efforts have been made to introduce machinery for some of the preparatory works of the cigar manufactory, such as for spreading out and polishing the leaves for wrappers, etc.

The total expenditures of the government for officers and servants amounts to 275,929 florins.

The expenditures of the central direction of the manufactories and receiving offices amounts to the sum of 75,152 florins.

OF THE CONSUMPTION OF TOBACCO AND THE REVENUE DERIVED THEREFROM.

In the Imperial Austrian States, within the period of six years, viz., from 1851 to 1856, there have been consumed 3,641,657 centners (cwt.) of tobacco, for which has been received 231,926,743 florins.

These amounts apportioned per head, amid a population of 38,405,357 souls, for the average of six years, gives 9.48 pounds of tobacco per head, and an expenditure of 6.03 florins per head; making an average of 1.58 pound and 1.005 florins per head, every year.

In the German Sclavonian States, with an average population of 18,767,219 souls, the average consumption has been for each year per head, 1.99 pounds of tobacco, and 1,26 florins expenditure.

In Austrian Italy, with an average population of 5,326,953 souls, the yearly consumption per head, has been 0.885 pounds, and in money for the same 1.105 florins.

In Hungary, with an average population of 14,311,185, the average consumption per head per annum has been 1.30 pounds, at a cost of 0.633 florins.

The use of snuff is gradually diminishing, and may be expected to go on decreasing. The old generation of snuff-takers is gradually dying out, and is not renewed again by the rising generation. But the use of smoking tobacco is on the increase.

It is a remarkable fact that the greatest relative or comparative consumption of tobacco throughout all the Austrian dominions is in those places which border upon, or are adjacent to, foreign States, such as Trieste, Salzburg, and the Tyrol. Also in the other provinces which are near to foreign countries, or which are upon the sea coast, have a relative greater consumption than the inland provinces, such as, for example, Bohemia, Moravia, Istria, and Dalmatia.

From these facts the inference may fairly be drawn, that the government manufactured tobacco is exported for foreign consumption, and that notwithstanding the monopoly price, its quality is such as to give it a preference over foreign manufactured tobacco.

At every manufactory there are two prices, viz., the wholesale and retail prices. The wholesale dealers are required to supply the retail dealers at wholesale prices; for this they are allowed a certain percentage. The retail dealers on the other hand, supply the consumers regularly at the fixed retail price, which is from ten to fourteen per cent higher than the wholesale price. From this difference in price the retailer derives his profit, out of which, however, he has to defray all his expenses in the business.

This percentage is quite sufficient in the large cities and towns to afford a good income to the retailer, who generally carries on no other business; but in villages and small places in the country the retailing of tobacco is joined with other occupations, and is carried on generally as an auxiliary branch of business by small shopkeepers.

The wholesale dealers are also required to sell to any one at wholesale prices, when the quantity purchased is not less than one pound of tobacco or 100 cigars.

OF THE INCOME DERIVED FROM THE MONOPOLY.

Throughout the whole extent of country subject to the government tobacco monopoly, within the period of six years, viz., from 1851 to 1856, the receipts have been 241,716,205 florins; the expenses 114,641,977 florins.

Accordingly, the net income derived from the monopoly, within the above period, amounts to 127,074,228 florins.

This net income gives 110.8 per cent as interest upon the total sum expended; that is, upon the whole capital employed, consisting of 114,641,977 florins.

The income derived during these six years presents for each year the following results:—

For the year.	Capital employed in Gulden.	Income received in Gulden.	Amounting to interest upon the capital of. Per cent.
1851	14,821,204	13,926,703	93.9
1852	19,375,278	17,210,977	88.7
1853	17,320,513	21,382,625	123.4
1854	20,278,016	22,129,915	109.4
1855	20,361,034	25,866,491	127.4
1856	22,485,932	26,557,517	118.1

In the above table the year 1852 appears the least favorable. This is owing to a great increase of the expenses, occasioned by the erection of new buildings for manufactories, by the purchase of the necessary real estate for the above, by the damages and indemnities paid in Hungary to dealers and others on the introduction of the monopoly into that country, and also by the purchase of a great quantity of foreign tobacco leaf at high prices.

On comparing the income of the year 1856, amounting to 26,557,517, with that of 1851, amounting to 13,926,703, it will appear that within six years there has been an increase of 12,630,814 florins, amounting to 90.6 per cent.

It is true that within the same period of time the net income yielded by other branches of indirect taxation has also considerably increased in the same time. Thus, for example, the net yield of the consumption tax (Verzehrungssteuer Gefälles) increased 30.9 per cent, that of the customs 8.1 per cent, that of the Salt monopoly 3.6 per cent. But such a considerable increase in revenue, as that yielded by the tobacco monopoly, since its extension over every part of the empire, has certainly never before happened in any branch of indirect or direct taxation. Such a result fully justifies the assertion made in the commencement of this paper, viz., that there exists no other article of consumption so well adapted to the purposes of indirect taxation, and none other which can be taxed with so small a perceptible inconvenience to the consumer, as the article of tobacco.

Having thus given some account of the results obtained by the tobacco monopoly since it has been extended over the whole of the Austrian dominions and dependencies, it may be a matter of some interest to give an account of the results of the same since its first original and partial establishment in Austria, and also to make a comparison between the Austrian monopoly and the same system as it prevails in France.

The first monopoly by the State of the manufacture and sale of tobacco dates its origin from the year 1670. At the commencement of the system it was limited in its extent to the province of Upper Austria, and produced no great or direct effects on the State treasury. In the year 1679, the monopoly and privilege of manufacturing and selling tobacco, was, for the first time, farmed out to private persons and to companies, and then the treasury was benefited by the regular rents paid for the privilege by those to whom it was farmed out. In the year 1783, however, the government took upon itself the manufacture and sale of tobacco, leaving still to certain persons the farming privilege as before, under distinct control and regulations. This system has been continued ever since.

The total net income derived from the tobacco monopoly in Austria, within the period of 178 years, since its first creation, amounts to the sum of 593,298,125 florins; of this amount, the sum of 52,822,304 florins was the amount of revenue paid into the treasury by the farmers of the monopoly during the space of 104 years.

And of this amount, the other sum of 540,475,821 is the amount received during seventy-four years under the management of the monopoly by the government itself, after the abolition of the farming-out system.

The following table, giving the net receipts of the monopoly at different periods, will serve to show how the revenue from the monopoly has gone on gradually increasing.

The net receipts from the year 1679 to the year 1800, inclusive, being a period of 122 years, have amounted to the sum of.....	florins		117,163,454
From 1801 to 1820 (20 years) they were	.....		113,769,083
1821 to 1840	"	.....	113,846,824
1841 to 1850 (10 years)	"	.....	121,444,536
1851 to 1856 (6 years)	"	.....	127,074,228

The consumption of tobacco manufactured by the government within the period of seventy-three years of the State monopoly has been 16,600,519 cwt. or centners; for which the gross receipts were 1,044,860,576 florins.

The following table gives the quantity of tobacco manufactured, and the amounts of the gross and net receipts for the years mentioned, commencing from the year 1783:—

			Quantities of tobacco consumed in cwt.	Gross receipts in Gulden.	Net receipts in Gulden.
For 18 years,	from	1783 to 1800.....	2,366,716	112,026,075	64,341,150
20	"	1801 to 1820.....	3,362,981	267,276,145	113,769,083
20	"	1821 to 1840.....	4,127,741	210,325,992	113,846,824
10	"	1841 to 1850.....	3,101,424	213,516,129	121,444,536
6	"	1851 to 1856.....	3,641,657	241,716,205	127,074,228

The large amount of gross receipts in the period comprised between 1801 and 1820, which is out of proportion with the consumption and same receipts in all the other periods, arises from the financial panics and consequent depreciation in the value of money, and necessary high selling prices. These financial disturbances occurred twice in the above named period.

The great increase of production and consumption within the period comprised between 1841 and 1850, is to be accounted for by the great increase in the use of cigars, the manufacture of which is more costly than that of smoking tobacco, both with respect to the employment of labor as also with respect to the cost of the raw material used.

The cigar manufacture was first commenced in the Austrian State manufactories in the year 1814.

The consumption of cigars has been to the following amounts in the years mentioned:—

From 1814 to 1820	.....pieces	12,502,980
1821 to 1840		149,816,511
1841 to 1850		1,434,243,165
1851 to 1856		4,465,214,014
Total in 43 years.....		6,061,776,670

In the above table the consumption of cigars in the Italian dominions of Austria is not included in the years preceding 1845, from which time it is comprised in the above table in the general consumption.

The above results of the tobacco monopoly manufacture in Austria, if compared for the period of six years, viz., from 1851 to 1856, with the results of the French tobacco monopoly manufacture, from the year 1850 to 1855, (inasmuch as the results of 1856 in the French manufacture have not yet been made known,) will show that the consumption in the two empires have been as follows:—In Austria, 3,641,657 cwt.; in France, 2,298,484 cwt. Hence it will appear that the consumption in Austria exceeded that in France by the amount of 1,343,173 centners, or 58.4 per cent.

The above comparison has been made after reducing French weight and money to an equivalent with Austrian (Vienna) weight and value.

This estimate of six years' consumption gives the average consumption per head of the population of both countries, as follows:—In Austria, 9.48 pounds, or 1.58 pound head annually; in France, 6.47 pounds, or

1.08 pound per head annually. Hence it appears that the average consumption in Austria is greater than that in France by 46.5 per cent.

The total receipts for the space of six years have been—in Austria, 241,716,205 florins; in France, 323,847,468 florins. Consequently the receipts by the treasury in Austria have been less than the same in France by 82,131,263 florins, or 33.9 per cent.

This gives a money payment per head, to each individual of the population of 6.29 florins in Austria, and 9.12 florins in France. Hence it appears that each person in Austria contributes, per head, 45 per cent less to the monopoly revenue than each person in France.

By the above it will also be seen that the average selling price of a cwt. or centner of tobacco is as follows, viz.:—In Austria, 66.3 florins per cwt.; in France, 140.8 florins per cwt. Hence it appears that a centner (or cwt.) of manufactured tobacco costs in Austria 74.5 florins, and is 112.3 per cent, cheaper than in France.

The total expenses of the departments in the two countries have been, in Austria, with a consumption of 3,641,657 centners—expenditure, 114,641,977 florins; in France, with a consumption of 2,298,484 centners—expenditure, 86,551,449 florins; making a difference of 28,090,528 florins of greater expenditure on the side of Austria, for a difference of 1,343,173 of greater consumption.

The average expenditure or cost of production to the government, of all kinds, in the tobacco monopoly, amounts in Austria to 34.4 florins per centner; in France, to 37.6 florins per centner. Hence the cost of production is in Austria 19.7 per cent less than it is France.

The net income or profits, during the period of six years, have amounted in Austria to 127,074,228 florins; in France, to 237,296,019 florins. Hence it appears that the monopoly profits in France have been 87.1 per cent greater than the same in Austria.

Hence it appears that the average gain or profit on every cwt. of tobacco sold, has been in Austria, 34.9 florins; in France, 103.2 florins; that is, 195.7 per cent less in Austria than in France.

From the preceding comparisons which have been made, the fact is demonstrated that the larger receipts of the French government from the tobacco monopoly are owing to the proportionate higher prices at which tobacco of all kinds is sold by the government in France. On the other hand, it is shown that the consumption is greater in Austria, the selling prices are less, and the costs of manufacture and production are less in Austria than in France.

If during the last six years the 3,641,657 cwt. of manufactured tobacco, in the circle of the Austrian monopoly, had been sold on an average at the same prices at which the same quantity has been sold in France within the same period, in such case, the net receipts of the Austrian treasury would have been 398,279,976 florins, or 271,205,748 florins more than they were; that is, 213.4 per cent greater.

From the preceding documents and history some idea may be formed of the working of the government monopoly in the tobacco trade, and we are furnished with certain fixed data by which a fair comparison may be made between the two systems. It appears from the preceding statements that since the assumption by the government into its own hands of the business of manufacturing and selling tobacco in the whole empire—1st. The consumption of tobacco has been greatly increased. 2d.

The quality of the manufactured tobacco is not only more uniform, but is considered to be superior to what was furnished by private traders. 3d. The price of the article to the consumer is less than it was when the trade was in private hands. 4th. A considerable revenue is derived to the government by this trade, in a manner not in the least burdensome or oppressive to the people, and saving the necessity of other more vexatious modes of taxation.

It will be observed that all these advantages have been attained without any injustice being done to those who were previously engaged in the trade before it was taken up by the government; all such persons were liberally paid for their stock in hand, and reimbursed for their surrender of a profitable business. The people, therefore, cannot complain, inasmuch as they are supplied with a cheaper and better article; nor can the trader complain since he has been reimbursed for whatever capital he has risked in the trade. If some should be inclined to complain that a few individuals in the community are prevented from making private fortunes, as is done in England, by this trade, a brief view of the real effect of this circumstance will at once, we think, remove every objection. The real effect is this, that instead of a few private fortunes being made by individuals for their own benefit, a large public fortune is in reality made for the benefit of the nation. The profits of the trade form a national revenue, which enures to the benefit of the people in every imaginable class of the community, for by its means the people are saved from a large amount of onerous taxation, which must otherwise be resorted to, to supply that revenue which by this means is supplied. We may even say that this public revenue is raised without any taxation whatever. On due consideration it may be affirmed that this system not only is in itself no taxation upon the people, but that, in an article of extensive use, it relives them from a great amount of taxation which, without this system, they must otherwise pay. It does this in this way, viz., it supplies them with an article of daily use and necessity cheaper than they were formerly supplied by private traders. Consequently, it will be manifest that the government causes them to pay a less tax than they paid before. They formerly paid the tax of a higher price to private traders to build up private fortunes; but now they pay no longer that tax, so far as they obtain the article at a lower price, and also, by the lower price which they pay they build up not private fortunes, but it may be said their own, for they help to build up a public revenue which saves them from many other grievous taxes. We might enlarge on this subject, and call attention to many other interesting deductions and inferences which the valuable information in the above account naturally suggests, but we leave the reader to observe for himself the numerous and interesting facts brought to view, and to form out of them his own opinions and deductions.

Art. II.—GARBLINGS: OR, COMMERCIAL COMMODITIES CHARACTERIZED.

NUMBER VIII.*

ALCOHOLIC LIQUORS.

DISTILLED LIQUORS.

ALCOHOL PROPER—HOW TO ASCERTAIN ITS PURITY—PERCENTAGE OF WATER ALWAYS PRESENT—THE ALCOHOLOMETER—PROOF SPIRITS—RECTIFIED SPIRIT—FRENCH VARIETIES OF SPIRIT—SPECIFIC GRAVITY OF DIFFERENT STRENGTHS OF ALCOHOLIC LIQUORS—ADULTERATIONS OF ALCOHOL PROPER, AND HOW TO DETECT THEM—PRETENDED CHEMISTS—LIKE ELEMENTS PRODUCE DIFFERENT COMPOUNDS—ISOMERIC BODIES—BRANDY, ITS QUALITY AND ADULTERATIONS—OIL OF COGNAC—CATAWBA BRANDY—ŒNANTHIC ACID—GIN, HOW MADE, PURE AND IMPURE—ADULTERATIONS DETECTED—RUM, WHEN ONLY GENUINE—IMPURITIES—WHISKY, ITS CHARACTERISTICS—FUSEL OIL—STOCK IN TRADE OF MODERN LIQUOR MANUFACTURERS—LIQUOR POISONS DETECTED, AND POISON LIQUOR DESCRIBED—CONSTITUTIONAL EFFECTS OF ALCOHOLIC LIQUOR, COMPARED WITH ADULTERATIONS.

However different in relative proportion the various chemical constituents which compose the spirituous products obtained from fermented liquors by the ordinary process of distillation, *alcohol* is the essential principle of them all.

Alcohol, when chemically pure, consists of carbon 52, hydrogen 13, and oxygen 35 components. It is a limpid, colorless fluid, having a penetrating odor and burning taste. It is highly inflammable, and burns with a lambent, yellowish-blue flame. When diluted, the color of the flame varies according to the quantity of water present, the blue predominating in proportion to the strength in alcohol, and the yellow in proportion to the quantity of water. The combustion of alcohol is wholly unattended with smoke—the only products being water and carbonic acid.

Alcohol is specifically lighter than water, but has an unlimited affinity for it; and all the processes for determining the proportion of water in alcohol have, for their object, the means of ascertaining the specific gravity of the mixture. The alcohol of commerce is never chemically pure. The lightest that can be obtained by simple distillation has a specific gravity of 0.825, which contains 11 per cent of water, but by the intervention of substances that have a still greater affinity for water, it has been reduced to the specific gravity of 0.790. In this state it is highly volatile, boiling at the temperature of 168° F.

The usual method of ascertaining the specific gravity of alcohol, is by the *centesimal alcoholometer* of Gay Lusac. The scale of this instrument is divided into 100 equal parts, of which 0 corresponds to pure water, and 100 to absolute alcohol at the temperature of 59° F.; consequently, if it is introduced into a mixture of equal parts of alcohol and water at this temperature, it will sink to the line of 50. In like manner it will indicate the per cent of alcohol in any proportion by the line of level to which it sinks. Take, for example, a pipe of brandy containing 126 gallons, reduce it to the necessary temperature by outward applications; on intro-

* For No. 1, see *Merchants' Magazine* for July, 1857, (volume xxxvii., pp. 19–23;) for No. 2, see same for August, (pp. 166–171;) for No. 3, see same for September, (pp. 298–303;) for No. 4, see same for November, (pp. 542–554;) for No. 5, see same for January, 1858, (volume xxxviii., pp. 43–50; for No. 6, see same for February, (pp. 175–183;) for No. 7, see same for March, (pp. 292–302.)

ducing the alcoholometer it sinks to the line of 55, then 100 : 55 : : 126=69.30 gallons of alcohol, and 57.70 of water.

Proof Spirit.—This term originated in an ancient custom of testing the strength of alcoholic liquors by means of gunpowder. The spirit to be tested was poured upon gunpowder in a vessel, and then set on fire. When the spirit was consumed, if the powder took fire, the spirit used was said to be *over proof.* But if the spirit contained much water, when the alcohol was consumed, the powder was rendered so wet that it would not inflame, and such spirit was deemed *under proof.* When the specific gravity method was established, it became necessary to establish a legal standard, and a convenient method of mixing equal weights of alcohol and water at the temperature of 60° F., was adopted for proof spirit. This mixture has the specific gravity of 0.917, but the excise of England established 0.920 as the legal standard. The United States standard is 0.930. Lighter than this is over proof; heavier, under proof.

Rectified spirit has, by English customs, a density of 0.725, United States 0.835. In France *alcohol rectifie* ranges from 66 to 70 per cent of alcohol, and has a density of 0.900 to 0.890.

Eau-de-vie preuve de Hollande, contains 47 per cent of alcohol, and has a density of 0.941. Spirit which contains less water than eau-de-vie preuve de Hollande, but more than alcohol rectifie, is known as *esprit.* That which contains 59 per cent of alcohol, and has a density of 0.917, is the *double cognac;* 61 per cent of alcohol and 0.911 density, is the *preuve de Londres;* 85 per cent of alcohol and 0.849 density, is the *esprit trois six.*

Trois six ($\frac{3}{6}$) contains, by volume, equal parts of water and eau-de-vie preuve de Hollande.

Trois-cinq ($\frac{3}{5}$) contains two parts of water and three parts eau-de-vie preuve de Hollande.

Trois-sept ($\frac{3}{7}$) contains four parts of water and three parts eau-de-vie preuve de Hollande.

For ordinary purposes, the alcoholic strength of spirits may be known by weighing a sample in a phial which is known to hold exactly 500 grains of water at the temperature of 60° F. An equal bulk of rectified spirits weighs 418 grains, and of proof spirits 465 grains. Hence, the number of grains above or below these sums will indicate the relative strength of the sample.

The specific gravity of rectified spirits being (in the United States) 0.835, and proof spirits 0.93 ', it follows that nine parts of the former are nearly equal to ten of the latter.

French brandy is generally proof, containing about 50 per cent of alcohol; Scotch whisky contains 45.68 per cent of alcohol; Irish whisky contains 46.96; Jamaica rum 46.52; and gin 48.94 per cent of alcohol.

The following table shows the percentage of alcohol corresponding to the different degrees of the centesimal alcoholometer:—

Centesimal alcoholometer.	Density.	Centesimal alcoholometer.	Density.	Centesimal alcoholometer.	Density.
0	1.000	56	0.923	83	0.857
5	0.993	59	0.917	84	0.852
10	0.987	61	0.911	86	0.847
17	0.979	64	0.905	88	0.842
23	0.973	66	0.900	89	0.837
29	0.966	69	0.894	91	0.832

Centesimal alcoholometer.	Density.	Centesimal alcoholometer.	Density.	Centesimal alcoholometer.	Density.
34	0.953	71	0.888	92	0.827
39	0.947	73	0.883	93	0.823
43	0.941	75	0.878	94	0.818
47	0.935	77	0.872	96	0.813
50	0.929	79	0.867	97	0.809
53	0.923	81	0.862	98	0.804
..	....	..	....	99	0.800
..	....	..	....	100	0.795

But the accuracy of the alcoholometer depends upon the presence of nothing but water to influence the specific gravity of the mixture; this being known to manufacturers, they are in the habit of introducing such substances as will impair the use of this instrument.

Adulterations.—Chloride of lime possesses the property of increasing the density of alcoholic liquors, and consequently of giving apparent weakness. The addition of this substance, therefore, is one of the most common adulterations in order to elude the legal rate of duty on proof spirits.

To detect this fraud, dilute a portion of the suspected liquor with pure water, and add to it a solution of oxalate of ammonia or nitrate of silver; the former throws down a white precipitate, and the latter a curdled deposit. But as these tests are insoluble in alcohol, and will, on that account, produce a turbid appearance when no lime is present, the solubility of this precipitate in water will indicate the freedom of lime from the sample. When lime *is* present, the precipitate is not soluble in water. Another and absolutely certain means for the double purpose of ascertaining the per cent of alcohol and whether lime is present, is to distill off the alcohol, which may be measured, and apply the tests for lime to the aqueous solution which remains.

The *salts of lead, copper, and zinc, and acetic acid*, frequently find their way into alcoholic liquors by means of the material used in manufacturing, or the utensils in which the liquor is kept. The first of these substances is sometimes introduced for the purpose of clarification. It may be detected by adding a solution of carbonate of potash, which throws down a white precipitate, soluble in an excess of the alkali, or by sulphuretted hydrogen, which throws down a dark-colored precipitate.

The presence of *copper* is indicated by testing with carbonate of potash, by a bluish-green precipitate. Ammonia produces with this substance a handsome, bright blue. By adding a few drops of sulphuric acid to an alcoholic solution of the salts of copper, and afterwards plunging into it a polished iron plate, metallic copper will cover its surface.

Zinc.—The salts of this metal are also used sometimes for clarifying purposes. With these, carbonate of potash and sulphuretted hydrogen produce white precipitates, which are soluble in an excess of the alkali. The precipitates thus produced turn yellow if exposed to strong heat.

Acetic acid.—All alcoholic liquors contain more or less of this substance, which passes over during alcoholic distillation, but, generally speaking, the proportion from this source is very small. Its presence in larger quantities is chiefly due to the influence of the atmosphere on liquor which is not well protected, or which has been for a long time broached. When there is much present, on testing with litmus paper, it will be immediately reddened. By saturating the acetic acid in spirits with magnesia, and treating the residue with sulphuric acid, the peculiar

pungent odor of the acetic acid can always be detected. Such are the adulterations common to alcoholic liquors in general.

Unrectified distilled liquors possess an aroma characteristic of the substances from which they are obtained. Grapes, grain, sugar-cane, rye, rice, wheat, barley, cherries, peaches, apples, potatoes, all give their corresponding flavor, and it is with no little difficulty that the rectifier is able to drive off the essential oils from their natural combinations with alcohol. But this being done, *rectified spirit*, from whatever source, is essentially the same. The substances used for producing it, therefore, depend upon the differences in cost in the various places where it is made.

The essential oils of distilled liquor, on once being separated from their natural combination, are ever afterwards incapable of being again united with the same properties. Modern liquor manufacturers, it is true, pretend not only to imitate, but by means of the essential oil of one substance and the alcohol of another, to *make* a liquor equal in all respects to that which may be distilled from a source of natural combination! The author of the "Bourdeaux Wine and Liquor Dealers' Guide"—"after many years' practice," declares his ability to manufacture any kind of liquor out of the discordant materials obtained from various sources, equal in all respects to those produced from the same elements in a state of nature. On the same principle, the grape, the natural source of wine and brandy, could not only be formed out of the collected elements of its own destruction, but made, perhaps, with improvements, by arranging anew the elements of wheat, potatoes, turnips, and beets! And going a step further, such pretenders would conceive that it is only necessary, on the same principle, to nourish all vegetables and animals on their kind, in order to produce the highest degree of excellence. They have need to be taught that the *excreta* of the chemist's crucible are quite as unfit for, and incapable of, recomposing the substance from which they are obtained, as are those which result from the no less natural though slower decomposition constantly going on in the healthy growth of all vegetables and animals. In the infancy of chemisty, it was thought that the same elements, united in the same ratio, must always give rise to the same compound. Liquor manufacturers practice this plausible theory without caring to investigate its falsity. There are many examples in chemistry of *several* substances containing the same elements in the same ratio, yet having totally different properties; alcohol, indeed, being a compound of this nature. Compounds consisting of the same elements, but having different properties, are known in chemistry as *isomeric bodies*. When ardent spirit is prepared from grain, the first part of the process is similar to that in preparing it for brewing. The malt is mashed and fermented for the purpose of producing the alcohol, only it is not hopped, and from this the spirit is separated by distillation. *Whisky* is distilled from a wash of grain thus prepared. But for particular varieties of spirit, it is customary to mix the grains. In Holland the best *Geneva* is produced from a mixture of three parts of wheat to one of barley. In Scotland, one part of malted to nine parts of unmalted grain is the usual proportion for whisky.

BRANDY.

Brandy is the distilled product of fermented grape juice or wine only, and liquor purporting to be brandy produced from, or made of, any other substance, is a counterfeit. The flavor of brandy is that of the essential oil of grapes, *huile de Cognac*.

The general mode of manufacturing brandy in France is by distilling poor wine, or the fermented juice of bad grapes. Wines which have failed in maturing or become acid, are generally distilled into brandy. The flavor, however, is usually tainted according to the quality of the wine or grape juice used in the making. In the distillation of brandy, very great care is necessary to preserve a uniform temperature. The first which comes over is usually devoid of flavor, and is returned into the still; what rises next is considered the best—containing the most of the essential oil of the grape—called *eau-de-vie premiere*, or first quality.

As distillation proceeds, the quality is impaired, and the last which comes out requires re-distillation with fresh wine or grape juice. The manufacturers frequently test the strength by various simple means—such as dropping it on the head of the still to see if it will take fire, or by letting a drop of oil fall into it, when, if it sinks to the bottom, it is taken to indicate a great degree of purity and strength. Such brandy is called *eau-de-vie double.*

The brandy for exportation is generally of second distillation, and flavored for the English market.

The aroma is increased or diminished by the rapidity of distillation. Brandy from inferior wines or must is usually carried through to save cask-age, and when prepared for exportation, it is brought to the strength of $\frac{3}{4}$.

The best cognac is at first colorless, but if kept long in wood it acquires a slightly brown color, which is due to a solution of the tannin and extractive in the wood. It has an aromatic odor, a distinct warm taste, that is increased by time. Those most esteemed in France are produced in Languedoc, Saintonge, and Angoumois, and usually known under the name of *eau-de-vie Montpellier*, *eau-de-vie Cognac*, *eau-de-vie d'Armagnac*, or simply *Cognac.*

The dark brown color, supposed to be a character of "dark brandy," is usually due to burnt sugar, oak chips, safron, catechu, &c.

New brandy contains empyreumatic acid; age softens and combines this with the essential oil of grapes, and it becomes *malic ether.*

When made from the *marc* of grapes, it is the nutty variety, so flavored by the œnanthic acid contained in grape stones. This is much admired by some drinkers, and is the cheap brandy of France.

A common sophistication is to add malt or other grain to the must or wine before distillation. Another means is to distill the product of fermentation from other substances, and then add some of that which has been produced from the grape product.

Genuine French brandy usually evinces an acid reaction with litmus paper, owing to the presence of a minute portion of vinegar. It contains besides some acetic ether, and when long kept in oaken casks, a little astringent matter. The oil of cognac has already been designated. The *Catawba* brandy of Messrs. Longworth & Zimman, is the best American brandy, yet a large portion of it contains *fusel oil*, the essential oil of *potato* and *corn* spirits, and is rarely to be found in *grape* spirits unless by distillation from the *marc.*

Œnanthic acid is generally present on the same conditions. English brandy is also usually prolific in *fusel oil* and *œnanthic acid.*

GIN.

Gin is so called from the French name *genevræ*, of the juniper berry. It has always been the custom of distillers to add aromatic substance to

the fermenting wort in order to cover the unpleasant flavor pertaining to decomposing substances which produce alcohol.

Juniper berries were first used for this purpose at Leyden, by Sylvius, a distinguished physician and chemist there about the middle of the 17th century. Sylvius found the liquor thus obtained to possess valuable medicinal properties, and it was for a long time used only as such, and confined to the apothecaries' shops. Spirit lovers, however, became very fond of it, and it was soon adopted as a beverage, and made an article of general trade, and received the name of the plant used to give it flavor. In Holland, the original "Geneva" was made by grinding the juniper berries with the malt, before fermentation, and subsequently fermenting the whole together, by which the flavor becomes perfectly disseminated from the beginning, and the spirit thus made is superior in flavor to any other.

The first imitations of "*Geneva*," in England, were very similar to the Holland, but they soon discovered that the flavor of the oil of turpentine was so near that of juniper as to be scarcely detectable, and as it cost much less than oil of juniper, it was chiefly used. English and American gin is only raw corn spirits and oil of turpentine distilled together by the rectifier; occasionally, to their best counterfeits, a little juniper is added, with various other ingredients.

In *Scheidam*, *Geneva* is made as follows:—A quantity of coarsely ground rye is mixed with about a third as much of barley malt. This is wet with cold water, and thoroughly mixed into a uniform mass; after which, water at the temperature of 98° is added, and the whole thoroughly stirred; after which, the yeast or ferment is added—fermentation usually begins in about six hours; if earlier, there is reason to fear that it will be too strong, and means are used to check it. If this process is well conducted, it ceases in about three days. When the liquor is transparent and has a hot, acid taste, it is then well stirred again, mixed with the corn, and the first distillation is at once proceeded with, but with very great care—slowness and regularity being of the utmost importance. On the completion of this, the liquor is rectified over juniper berries, once or oftener, according to the desired quality. For common use, once is deemed sufficient. "Double Geneva" has undergone several rectifications.

Some distillers mix the juniper berries with the wort and ferment them together, but such spirit is of inferior quality, and generally intended for the English market or the interior. The best juniper berries are the Italian.

The best English gin is made by mixing ten gallons of proof spirit with three of juniper berries and four gallons of water. This is slowly distilled over, and when complete, reduced to proof strength. It is called *royal* gin.

Common English gin is made by mixing five gallons corn spirits, one ounce oil terpentine, half pound juniper berries, two ounces sweet fermel and caraway seeds, and a handful of salt. This is distilled over, and the product reduced to the required strength by the addition of water.

Ten gallons of spirits is deemed sufficient to make fifteen gallons of gin, but owing to the resin of the turpentine, the addition of water alone to gin frequently renders it turbid, hence other means have to be used to "fine" it, or restore its limpidity. For this purpose, *acetate of lead*, *alum*, and *subcorbonate of potash* are the most common substances. These are

mixed and added as much as may be necessary to produce the desired appearance. Another compound, used for the same purpose, is a mixture of sulphuric acid, alum, carbonate of potash, almond oil, and alcohol. This not only clarifies it, but gives it desirable "beading" properties, which will enable it to bear more water; and in order that the taste may correspond with the beading, *tincture of Cayenne pepper*, and *grains of paradise* are added to produce pungency. Sulphate of zinc is also a common addition.

RUM.

The peculiar aroma of rum is due to the essential oil of sugar-cane. Molasses, scummings of hot cane juice, or raw cane juice, and lees called *dunder*, which consist of a ferment and the spent wash or *feculencies* from a former distillation, constitute the material for fermentation which produces *rum*.

The proportions of these substances are generally six gallons molasses, thirty-six gallons scummings from sugar pans, fifty gallons dunder, and eight gallons water. If the rum is required to be of finer quality, the proportion of dunder is lessened, as it contains a good deal of empyreumatic matter.

These substances are mixed and fermented about nine days, when they are put into a still, and the *low wines* carried over as long as it is inflammable; after which, it is *re-distilled* into rum of Jamaica proof.

New rum is very disagreeable and unwholesome on account of the excess of empyreumatic acid and oil. By time, these combine and produce the characteristic agreeable aroma and flavor of good old rum.

The best rum is of brown, transparent color, smooth, mellow, oily taste, strong and consistent body. That made in Jamaica is generally the finest quality.

Pineapple rum is made by adding this fruit to the cask. Spirit distilled from sugar and molasses is *sugar spirit*, but not rum.

WHISKY.

This liquor, of which Americans profess to know most, and make the best, is popularly deemed the most "healthy," because its source is so well known—it being *the* distilled corn spirit.

The peculiarity of whisky is that, wherever made, it usually contains a larger per cent of *fusel oil* than any other liquor, the flavor of this giving whisky its peculiar aroma.

Fusel oil stands in the same relation to alcoholic fermentation of corn and potatoes, as *oil cognac* to that from grapes, excepting only that it is much more abundant. In ordinary corn spirit or whisky, it constitutes about $\frac{1}{100}$ part. In fermentation from potatoes, it is still more abundant; this is probably due to the more active decomposition of these substanstances than corn—*fusel oil* being abundant in proportion to the decayed condition of the substance producing it, thus giving appropriate signification to the vulgar name of whisky, *rot gut*.

Besides the principles, as above detailed, pertaining to the natural state of the elements which constitute the common varieties of alcoholic liquors, there are various other elementary compounds which tend to make up the *tout ensemble* that cannot be isolated by chemical tests, though present to the delicate sense of cultivated taste; and of these counterfeiters always take cognizance.

The *necessary* stock for a modern liquor manufacturer, comprises the following assortment:—Oranges, lemons, raisins, dried peaches, rose-water, oris-root, olive oil, almond oil, alspice, cloves, vinegar, fennel, spirits turpentine, oil of juniper, oil of cinnamon, common salt, pepper, grains of paradise, Guinea pepper, kino, catechu, rye, cream of tartar, carbonate of potash, lime, sulphate of zinc, sugar of lead, sulphate of copper, chloride of lime, butyric acid, œnanthic acid, sulphuric acid, acetic acid, kreosote, coculus indicus, acetic ether, spirits of nitre, oil of cognac, fusel oil, cherry laurel water, which contains prussic acid, and numerous other ingredients which are used in smaller quantities, and, therefore, not capable of being isolated, though their presence is recognized as being unnatural elements.

PROPERTIES AND CONSTITUTIONAL EFFECTS.

The properties of several of the above named substances have been already detailed in the previous papers on *bread*, *beer*, and *wine;* for the rest, several of them will be at once recognized as agreeable flavoring ingredients and coloring substances. The *oils* of *turpentine* and *juniper* are well known to give *gin* its diuretic properties, on account of which, because they stimulate a particular function, they are, by those who are ignorant of the deleterious effects of a constant drain upon particular organs, deemed to be "healthy." Such, however, is far from being the case.

Œnanthic acid is an odoriferous and exceedingly volatile ether which comes over during the latter stages in the distillation of brandy, which liquor usually contains it. By experiments on the lower animals, œnanthic acid is found to be a highly irritant poison.

Sulphuric acid or *oil of vitriol*, is well known to be a powerful corrosive and deadly poison. It is used to form "bead" compounds for weak liquors.

Acetic acid has properties similar to the sulphuric. It is chiefly found in brandy, and, as stated before, is generated by exposure to the air. But, besides this, it is frequently added to counterfeit brandy mixtures in order to give pungency. *Acetic* ether possesses the same properties in a greater degree.

Pepper, *grains of paradise*, *&c.*, are powerful hot stimulants, used to give apparent strength to weak liquor.

Catechu and kino are well known astringents, producing constipation. They are mostly used to color brandy. Burnt rye, sugar, &c., are used for the same purpose.

Spirits of nitre is a powerful stimulant, with special action on the skin and kidneys. It has a pungent odor, and is a common ingredient of the "finest Monongahela."

Alum is an astringent. It is used, in connection with *sugar of lead*—a violent poison and powerful astringent—for clarifying purposes. When lead is taken for a long time in small doses, it causes paralysis.

Kreosote and *empyreumatic oil*, the products of the destructive distillation of wood, are acrid, narcotic poisons. They are used to give apparent strength to weak liquor, and increase the intoxicating properties of alcohol. They are generally present in rum. Employed in the production of "fine old" Irish and Scotch whiskys.

Coculus indicus.—The intoxicating and poisonous qualities of this drug

are fully detailed under *beer*. It is a usual ingredient in counterfeit rum and gin.

Oil of cognac, the essential oil of grapes, and naturally peculiar to genuine brandy, is a powerful, deadly poison; a few drops having been taken by a man in Canada, by mistake, caused death in five minutes. It is added to all counterfeit brandies.

Fusel oil, the essential oil of corn and potatoes, and specially abundant when these substances are in a damaged condition, is also a deadly poison, only a little less potent than the oil of cognac. It is present in all corn and potato spirits, and added to all such as are made to imitate them. It is most abundant in "fine old" Bourbon whisky.

Fusel oil can generally be detected in these liquors by testing with a solution of nitrate of silver; on adding which to a portion, and exposing the mixture to a strong light, a black precipitate will be produced; or by carefully pouring pure sulphuric acid to a test-tube partially filled with the suspected liquor; if it contains fusel oil, it will turn dark colored in proportion to the quantity present. Sulphuric acid will not change the color of pure spirits.

Cherry laurel water is used to produce the smooth, soothing effect attributed to "old" Bourbon whisky, and other "old" spirits. These properties are due to the presence of *prussic acid* in cherry laurel water, well known to be one of the most deadly poisons in existence.

It now remains to show the constitutional effects of alcohol, according to its usual signification, comprising both its natural and artificial elements, as generally used.

Alcohol, on being introduced into the stomach, immediately enters the circulation, and being perfectly miscible with the blood, speedily pervades every part of the system. Its effects are first declared by a full, frequent, and strong pulse, a general exaltation of the organic functions, exhilaration of the spirits, excitation of the intellectual powers, and an increase of muscular strength. If the quantity is increased, or the dose soon repeated, the individual finds his powers of self-control weakened or entirely lost, gives way to the bent of his true character, and, "*in veno veritas*," becomes manifest in his displaying real traits.

No matter how small the quantity of alcohol introduced in the stomach, it enters the circulation, and is distributed over the entire system. It is, however, far from acting equally on all the tissues with which it comes in contact; but, on the contrary, it has specific influence on the brain and nervous substance, and it is owing to this that it produces that singular species of delirium, *drunkenness*, which is its peculiar characteristic. It constantly seeks out and fastens upon the most sensitive portion of the animal economy, and it is owing to this that the energies of the system are speedily roused into resisting and eliminating it. This contest of the system, with an unnatural impression which it strives to get rid of, constitutes the stimulating effect of alcohol. And though it may be kept up for a time by the repetition of the dose, it is always, sooner or later, followed by a proportionate degree of exhaustion, and in proportion to the frequency of the paroxysms, are the powers of the constitution lessened, and the susceptibility to disease increased.

The *tonic* effect frequently ascribed to alcohol is wholly due to the compounds associated with it in administration, or to the temporarily increased activity of the absorbents during the period of excitation. It has,

strictly speaking, no tonic virtues whatever, but purely a *stimulant with special tendency to the nervous system.* And it is in virtue of its stimulant qualities only, that in cases where the digestive powers have become much enfeebled, a small quantity of alcohol, associated with a tonic, such as exists in bitter tinctures, serves to excite the stomach to the performance of its functions. But even in these cases, it requires the greatest care, lest exhaustion come on from *forced* strength, and the stomach breaks down from over-excitement. At best, alcohol only *paliates*, and cannot, therefore, be relied on longer than such a period as may serve to give the timely application of other and surer means. If continued too long, injurious results are *certain* to ensue. The habitual use of alcohol, under such circumstances, has been well compared to the trader who bolsters up a failing credit with accommodation paper, to carry onward, from day to day, a heavy balance, which MUST, in the end, be accounted for.

Tonics are remedial agents for weakness and relaxation, which restore functional activity and bodily strength, by inducing a *continuous* sound and healthy elasticity. Stimulants are limited in their action, and followed by depression, just the reverse of a tonic effect, in proportion to the excitation; and to no agent of the class is this definition more clearly applicable than to alcohol. Whatever the *temporary* excitement, or increase of power, brought about by the agency of alcohol, the system never sustains it; so that, though we may be enabled by its use to exert a higher degree of intellectuality, or a greater amount of muscular strength within a given time, such exertion is necessarily followed by a corresponding want of normal strength to accomplish as much within a certain other given time without it. It is indeed true, however, that some of the greatest displays of intellectual genius have been made under the influence of alcohol. But such displays are exceptions to the general rule, and individuals who have habitually resorted to it for the excitement of their intellectual faculties, have, in all cases, prematurely exhausted their strength, and become sad examples of the man in the fable of the goose which laid the golden egg.

True talent needs no alcoholic stimulus for the augmentation of its powers. It is *perpetually* inconsistent with the spontaneous and brief wit which is due to morbid excitement. Indeed, in every avocation, whether intellectual or physical, both the perfection and the amount of labor performed has always been in favor of those who abstain from alcohol.

The presence of alcohol in the healthy organism obstructs the necessary oxygenation of the blood, and increases the necessity for eliminating carbonic acid, while it adds to the quantity to be eliminated. We may, indeed, by constant repetition, force the system to its utmost capacity, and so postpone for a time the *certain* depression which must follow, but in doing so, the utmost exercise of the energies of the constitution sap the foundation of health and life.

Every species of excitation, whether bodily or mental, involves the death, decay, and elimination of a certain amount of tissue. The possibility of continued exertion, therefore, depends upon the due supply of reproductive means, or nutrition, and an unimpaired facility of eliminating dead and useless matter. While alcohol exerts its influence on the nervous system, it can, under no circumstances, nourish it. Its presence, therefore, prevents the application of elements which are necessary to sustain a normal degree of health and strength. The *enduring* effect is,

consequently, debility instead of strength. Considering, then, the difference between the *immediate* and the *remote* effects of alcohol on the constitution of man, we are justified in the opinion that whether applied to individuals or to the masses of mankind, the habitual use of alcohol is never otherwise than deleterious and inconsistent with the highest degree of either intellectual or physical strength.

In proof of this, it would be an easy matter to cite individuals and communities, but the writer prefers to take an equally certain means of proof, viz.:—the reader's own unbiased observation.

The action of alcohol on the human constitution, being thus regular and well understood on true physiological principles, its use, under certain circumstances, is clearly indicated; and its excessive injury, under certain other circumstances, equally clear.

Its primary effect being that of excitement to the nervous and circulatory systems, it follows that when there is such a demand for extraordinary exertion as will justify an endurance of the secondary effects, *at all hazards*, it may be used as a choice between evils. An Arctic navigator gives a case as follows:—"A ship, when sailing in the pack ice, is sometimes beset, or falls to leeward into the lee-ice. This takes *two or three minutes;* but if there is much wind, it takes as many *hours to get her out.* Not being in command, the sails are of no use, and the ice prevents her moving in any way but with it to leeward. Under these circumstances, the only way to get her out is by fastening ropes from the ship to the larger masses of ice, and warping her out by main force against the wind. Now, I have seen every officer and man in the ship straining at the capstain for hours together, through snow and sleet, with the perspiration running down our faces and bodies like water. Towards the end of such a struggle, *at the mighty crowning effort*, I have seen a little grog work wonders. I could not have drank hot coffee without stopping to cool it, nor, if I had, do I think it would have supplied the *temporary* amount of strength which was called for *on the spot* under circumstances like this. These, however, are extreme cases, which do not affect the sailor in his ordinary condition, and which any ship might be well prepared for."

A similar necessity may arise in intellectual pursuits, when the powers of the mind have become nearly exhausted by excessive exercise, a small quantity of alcohol re-awakens the energies of the system, and will, for a *short time*, serve to extend its powers. Every such resort, however, is followed by a *corresponding depression* in *addition* to the fatigue consequent on over-exertion. So that even in these cases it should be resorted to only with the greatest caution, and but rarely repeated. The powers of the system being already weakened, they are proportionately less able to withstand the certain depressing effects consequent on a forced excitement, and the worst results to the constitution are even more likely to occur.

The composition of alcohol most nearly approaches that of the oleaginous group of alimentary compounds, and it may, therefore, be considered as possessing heat-producing qualities. But in this regard it should be borne in mind, that, while alcohol is heat-producing, this quality chiefly consists in its own combustibility, or, in different words, in its quicker miscibility with, and circulation in, the blood than any other heat-producing substance. In virtue of this, carbonic acid and other injurious substances are retained until the alcohol is consumed or passes off. The

blood therefore loses its usual facility of decarbonization, and retains a dark venous aspect by the retention of carbon. Hence there can be no justification in the use of alcohol to maintain animal heat, unless there is a deficient supply from such other substances as will not hinder the elimination of carbon, the undue retention of which is always injurious. Such circumstances, however, do sometimes arise. Dr. Kane informs us, that when *short of oleaginous food*, in excessively low temperature, a small quantity of brandy, carefully *served out in spoonful doses*, was invaluable. This is the experience of others in similar emergencies, viz., *when unable to obtain food, under excessive fatigue, in severe cold*, alcohol becomes valuable as a *temporary* heat-producing agent; but as a reliance, or in continued exertion, it does harm by the consecutive depression.

In some persons there is a fixed constitutional debility, on account of the early habitual use of alcohol, which apparently deprives it of its usually stimulating qualities. And in such persons the continued use seems to be practiced with more impunity, and if it is left off serious results sometimes follow. When such persons are, by prison discipline or otherwise, denied an abuse which has to them become a necessity, their vitiated constitutions, incapable of sustaining any hardship, speedily sink, unless stimulated by alcohol. But these cases become the care of the physician, and the supply of *medicine* the sphere of the apothecary.

Making due allowance for the difference in, and habits of, individuals in ordinary health, a small dose of alcohol excites both the circulation and the brain, with a correspondingly slight depression below the healthy standard. A large dose excites both the nervous and circulatory systems, and secondly, the depression of the intellectual faculties becomes apparent before that of the circulation; while the excitement of the circulation frequently goes on without being followed by exhaustion, corresponding with the functions of the brain. But when the dose is larger, the depression of the nervous system comes on more rapidly; the exhaustion of the functions of the brain react upon the heart, and the circulation speedily gives place to a corresponding exhaustion.

When a large quantity is taken at one time, its influence is so speedy and powerful as to at once overwhelm all powers of resistance, and depression follows without any appreciable excitement. The secondary effect of a large quantity is that of a powerful narcotic, and the individual affected is incapable of self-control.

Delirium ebriosum, or drunken madness, when the individual ferociously attacks every one he meets, and madly rushes on to murder, or to commit suicide, is a condition to which any drunkard is liable, it being only a condition of common alcoholic delirium or drunkeness.

Delirium tremens, is the result to the nervous system of habitual drunkeness, or frequent intense excitement and exhaustion of the nervous system. Alcoholic insanity is one step further; the effect of alcohol on the brain carried so far as to exhaust the power of reaction.

Such are the outposts or most prominent features of indulgence in alcohol. Multitudes of other evils are lamentably familiar to every one; and were the use of alcoholic liquors to cease from the present day, the mental debility, insanity, and idiocy caused by it, would perpetuate the sins of the fathers upon the children unto the third and fourth generations. Indeed, we are obliged to conclude, that, however deleterious the effect of adulterations in distilled liquor, the effect of it alone in its natural combinations is more injurious than them all!

Art. III.—EXPLORATIONS OF THE AMOOR RIVER:

AND ITS IMPORTANCE ON THE FUTURE GREAT INTER-OCEANIC TRADE ACROSS THE AMERICAN CONTINENT.

COLLINS' JOURNEY ACROSS THE RUSSIAN EMPIRE—RUSSIAN TRADE OF THE AMOOR—GREAT RESULTS—AMOOR RIVER—ITS COURSE—JAPANESE ISLANDS—DRAFT OF WATER—GOVERNMENT OF AMOOR—COMMERCE FREE—SEAT OF GOVERNMENT—TRADE OF THE PLACE—CLIMATE—SEA SHORE, RIVER NAVIGATION—PEKIN TRADE—POPULATION OF THE AMOOR REGION—SOCIETY OF THE AMOOR—ENGLISH TAUGHT IN SCHOOLS—CHINESE TRADE—KYACHTA—TEA—BRICK TEA—SILK WOOL—USE OF CAMELS—AMERICAN TRADE OF THE AMOOR—RUSSIAN PROJECTS—RAILROADS OF THE AMOOR—ENGLISH OPERATIONS—SAN FRANCISCO TO AMOOR—CAMELS.

THE report of Mr. Perry McDonough Collins, the United States Commercial Agent for the Amoor River, relative to his journey across the Russian Empire from St. Petersburg to the Pacific, and his exploration of the River Amoor from its source to its mouth, has been printed by order of the House of Representatives. This report, which is in the form of a series of letters to the Secretaries of State, Mr. Marcy and Mr. Cass, gives much valuable information respecting the resources of a country hitherto but little known.

Prior to the settlement of California, we were accustomed to look upon the great regions of Siberia, Manchooria, and Mongolia, as too remote and valueless to be ever made worthy of investigation as points for commercial development. But now that our ports on the Pacific are within thirty days' sail of the ports of Asia, and since it is well known that the Russians are determined to settle and open to trade the immense region drained by the Amoor, the subject has engaged the serious attention of statesmen of Russia and America, and far-seeing men predict that the development of this great commerce must produce as great a revolution in the commercial world as did the discovery of the passage to India by the way of the Cape of Good Hope.

The Amoor River, or Sak-hah-lin, or river of the Black Dragon, enters the Straits of Tartary, or Bay of De Castries, in about latitude 54° north, and making a great sweep to the southwest, pierces the center of the Chinese State or Province of Manchooria, and, with its more southern branches, interlocks its waters with those that make off towards the southern portions of China, in the direction of Pekin and Corea; then bending to the north and west, in its main channel, seeks the dividing waters of that gigantic system of rivers that find their way to the frozen ocean.

Opposite the mouth of the Amoor is an island of considerable extent, stretching along parallel to the main land of the Chinese coast, called Sak-hah-lin. This island, as a continuation of the Japanese group, shuts in the coast of Tartary from the ocean, covering a distance of eight degrees of latitude, from 46° to 54° north. The waters between this island and the main land form the Gulf of Tartary, making out of the northern extremity of the Sea of Japan.

The best entrance as yet discovered or surveyed into the Amoor is from the south, through the Straits of Tartary, stopping at De Castries for a pilot. The greatest depth of water possible at the most favorable state of the tide is seventeen feet; but for a sailing vessel without the as-

sistance of lighters, or any means in case of grounding, except her own crew, to draw more than thirteen feet is not safe; and square rigged vessels of that draft, from the narrowness of the channel and its tortuousness, with the prevalence of adverse winds, will frequently be detained many days. The best vessels to navigate the straits and ascend the river, in the absence of steam tugs, will be schooners drawing not more than ten feet.

As there are, however, steam tugs on the river, square rigged vessels of the proper draught can readily enter.

Several American vessels have entered the Amoor during 1856 and 1857.

The commercial system of the Amoor government is separate and distinct from the general system of Russia in Europe. The Governor-General of Eastern Siberia, by instructions from his government, has ordered that the commerce entering the Amoor or ports adjacent, *shall be free for the term of five years, from* 1856. There are no lighthouses in this district—no tonnage duties or port charges.

The principal settlement on entering the Amoor is Nicolaivsky, the seat of government for the province of the eastern coast of Siberia. It is situated twenty miles from the mouth of the river on its left or north bank. Here resides a Governor and Captain of the Port, with such other officers as are necessary to the civil, military, and naval affairs of the government.

The trade at this port is, at present, confined to such supplies as are needed by the officers, soldiers, and settlers connected with the occupation of the Amoor, and among the native tribes. At present, most of the breadstuffs and provisions come from Siberia, as the settlements along the Amoor are too new and too sparse to produce much, while the settlements along the Okhotsk, at Kamschatka, or Sitka, produce only a few vegetables and forage for horses and cattle. The whole trade may be set down at about half a million of dollars annually; at present it is limited, and must remain so till an increase of steam navigation on the river will overcome distance and the force of the current, and bring the productions of the very heart of Siberia within a few days of the ocean, thus opening the country to a knowledge of the commercial world.

The left (north) bank of the Amoor from within fifty miles of its mouth, is, comparatively speaking, an even country, though the streams denote their mountain origin. In this region, from the fact that the upward course of the river *is nearly south*, the climate and productions rapidly change under a more genial climate and southern sun, while the harsh winds, and terrible fogs, and severe snow storms of the Okhotsk Sea and coast of Tartary, are broken and softened by the high range of coast mountains. The climate on the sea coast, and for three hundred miles up the Amoor from its mouth, is very severe in winter, the snow falling to a fabulous depth; and in fierce, blinding, and overpowering storms, called by the Russians, "*Poor-gah*," to distinguish their fierce severity and terrific grandeur. The shores of the sea coast are steep and rocky, hence, spots favorable to cultivation are few. The sea shore here spoken of may be considered as extending along the whole course of the Straits of Tartary to Emperor's Harbor, in north latitude 49°.

It has before been remarked that the Amoor, at a distance of some fifty miles from its mouth, makes a sudden bend towards the south; and to

obviate the great difficulties that present themselves during the winter months at the mouth of the river, it is probable that a commercial emporium will spring up at the bay of De Castries, about one hundred and fifty miles south, from which a short portage of five or six miles will reach the Amoor at Marin; or still further south, at Emperor's Harbor, from whence a short portage reaches the navigable waters of the Hongahree River, which empties into the Amoor two hundred and fifty miles from its mouth; but at present, and till the demands of commerce require a change, the head-quarters will be at Nicolaivsky. Passing up from Nicolaivsky, we cross the mouths of the Hongahree and Ousuree, and several smaller streams running in from the south, and heading far into the interior of the rich province of Manchooria, and at length reach the confluence of the Amoor with the Songahree, a noble stream stretching far away southwest into China, and heading up near the stockade, which is connected with the great wall of China. The commerce intended for the Amoor country concentrates at a point near where this stockade touches the river, being brought over land from Pekin, a distance of some four hundred miles, then placed in junks, and thus distributed at points most convenient to commerce. These junks are fifty to sixty feet long, capable of carrying fifty tons of merchandise. About fifty miles above the Songahree the Amoor turns a point of the Hingan Mountains, and continues its course in a northwesterly direction, which it keeps, as a general thing, till we reach Chetah, the head of navigation, at the base of the Stanovey Mountains, a distance of twenty-six hundred and sixty seven miles from the ocean, the whole of which can be navigated by steamboats. From Chetah down, the river is called the Ingodah, until it reaches Old Nerchinsk, where, having received the influent streams of the Onon and Nercha, it is called the Schilkah River, which name it retains till its junction with the Argoon River, at a place called Ouse Strelka, or the Arrow's Mouth, two thousand miles from the ocean, where it takes the name of Amoor, or Saghahlin, as it is usually called by the natives of Tartary. The whole of these rivers, Ingodah, Schilkah, and Amoor are navigable, free from ice six months in the year, from the 15th of May to the 15th of November—the middle or southern portion of the Amoor, longer. This corresponds with the term of navigation at St. Petersburg, and by adjusting the trade as it is there, ample time will be found to conduct it.

Of the trade of the immense region drained by the Amoor and its tributaries, it is impossible at present to form a just estimate, from a want of reliable statistics, but from the amount and variety of articles of foreign growth and manufacture seen, together with the well-known number of inhabitants, we may arrive at, perhaps a reasonable, though not a correct, estimate of consumption.

It is estimated that there are four millions of inhabitants in Siberia, including the natives of the country, and *not including* the provinces of Amoor, Mongolia, or Manchooria. It is safe to assume that this population would consume of foreign merchandise an average value of five dollars' worth each, which is about one-third the amount consumed in the United States. This would give twenty millions per annum.

The impetus that trade would receive with the opening of the Amoor, the advance in value of native products, a sure and speedy market, and cheap means of transport, will make it safe to say, that within five years after the first successful cargo of merchandise, by steam, should reach Chetah, the consumption of foreign merchandise would increase one hun-

dred per cent. The Russians, alive to the importance of the Amoor, have already inaugurated a company, called the "Society of the Amoor," (whose term of duration is fixed at twenty-five years,) founded by Messrs. Banardake and Roukavechnekoff, which has received the sanction of the Emperor, January 11th, 1858, and which is under the especial care of the Governor-General of Eastern Siberia. The object of this society is to develop commercial and industrial activity in the basin of the Amoor. The capital is fixed at first at four millions of francs, and to be increased to twelve millions. The principal office or head-quarters of the company is to be at Irkoutsk, and it is authorized to found upon the coasts of the Amoor and upon its course, as well as upon the Schilkah, counting-houses, magazines, ship-yards of construction, in a word, all kinds of establishments necessary to its commercial and industrial operations. The whole of this movement, sanctioned, as it is, by the Russian government, is not only to develop the resources of the country, but to invite foreign trade, and particularly the American. To this end, the Emperor last year issued an ukase to the effect that the American (English) language should be taught in all the schools of the provinces of Siberia and the country of the Amoor, instead of the German language, which is taught in the schools of European Russia, for the purpose, as was stated, of enabling the inhabitants to become able to cultivate commercial relations with the Americans on the Pacific. The Society of the Amoor propose to establish commercial relations with the native inhabitants of the basin of the Amoor; to carry on commerce, interior and exterior, through the ports of the Pacific, except those reserved by grant to the Russian American Company; to found establishments and manufactures; to develop the indigenous products of the country; to undertake to furnish various articles to the local authorities throughout the whole of Eastern Siberia, and to keep on the Amoor and its affluent, the Schilkah, steamboats and sailing vessels. That we have not heretofore looked to the trade and commerce of these extensive countries, is only because we knew nothing of them, and, even if we had, we were too far removed, by the overland route of several thousand miles via St. Petersburg, to be much benefited. Now we know something of this commerce; that it amounts to many millions of dollars annually, and that, instead of its lying on the opposite side of the world to us, as it did, in effect, before the acquisition of California, it now, by the navigable waters of the Amoor, can be penetrated from our own Pacific seaports.

It is not deemed necessary to enumerate, minutely, all the different articles of commerce that find a market either in Siberia, or by way of Kyachta and Mai-mat-tschin into China, or the three Tartaries, Bucharia, and even Thibet. It will be sufficient to state that throughout Siberia, Mongolia, and Manchoorin, in all the shops and magazines, may be found as great a variety of foreign and domestic merchandise of every description, as can be seen in the stores of any of the principal towns throughout the United States. The great trade through Siberia, at present, is the Chinese Russian trade, which has its head-quarters at the two frontier towns of Kyachta, in Siberia, and Mai-mat-tschin, in China. These two places are situated about three hundred and sixty-seven miles south by east of Irkoutsk, in 50° 21′ north latitude, and 106° 43′ east longitude, four thousand four hundred and sixty-one miles east of St. Petersburg, three thousand miles west of the mouth of the Amoor River, four hundred miles from Chetah, the head of steamboat navigation on the Amoor, and about one thousand miles northwest of Pekin. These places, by treaty stipulation,

are the two points at which all the legitimate trade and commerce between Russia and China must be conducted; and as it is now over one hundred years that this commerce has been carried on, it may readily be imagined that they are places of much wealth. The whole population engaged in the trade is about twenty thousand. In 1856, the amount of tea passed through the Custom-house was reported at one hundred and fifty thousand chests, or about twelve millions of pounds. This is certainly a small allowance for a population of eighty millions, who all drink tea, if they can afford it, from once to three times a day; and it may be inferred that much is smuggled on the frontier. The price of tea through Russia will average two rubles a pound, fine qualities sell from three to fifteen rubles the pound; the brick tea sells for one ruble in Irkoutsk, (the ruble is 75 cents.) This brick tea is made of the coarsest sort of tea leaves steeped in sheep's blood, and then worked into a dry paste shaped like bricks, and afterward boiled in milk into a sort of soup when used. The nomadic population of the Bouriates of Siberia, have long acquired the use of this tea, and are very fond of it. It used to be thought that the caravan tea was of a different and very superior quality to the Canton, and that to this circumstance its higher price was referable. The fact is, that the two sorts come from the same plant and the same plantations, and the difference in the quality are referable to the period at which the leaves are gathered. The picking generally takes place thrice a year; in May, June, and August, the leaves of the first crop being considered the finest. This is the sort usually purchased for Kyachta by the Schansi merchants, and costs fifteen to twenty kopecks higher than the other sorts. The other importations besides tea are sugar candy, rice, silk, tobacco, porcelain, cotton. A great variety of articles of fancy ware, rhubarb, Thibet musk, camels' hair, wool, hides, Japan-ware, paints, &c. The Russians exchange cloths of every color, furs and skins, copper and iron, tinsel lace, gold and silver lace, velvet, walrus teeth and fossil ivory, silver and gold, castings and steel, guns, swords, leather, dressed hides, skins, morocco, camlets and woolen goods, glass-ware, looking glasses, tin, talc, &c.

The duties collected in 1856 at Kyachta, amounted to over seven millions of rubles, and it is estimated that the trade amounts, annually, to twenty-eight millions of rubles, or twenty-one millions of dollars.

To transport this commerce, according to the mode pursued, from China, must take thirty-six thousand camels and bullocks, and thirty-six thousand horses in Siberia, admitting the same animals carried it the whole distance; but, inasmuch as there are in Siberia relays of horses on the route, it must employ largely over one hundred thousand in Siberia, to say nothing of Europe. These transports run in gangs with an average of one driver to three horses, so that the number of teamsters will amount to twelve thousand to each relay. This trade finds its way over a "post road," receiving and distributing both to and from Europe, the trade of Siberia, amounting certainly to as much as the Chinese trade, all of which finds its way to and from St. Petersburg, Moscow, Nijne-Novgorod, Kazan, to and across the Ural Mountains.

It is now proposed that this trade, or so much of it as may be profitable, shall find its way by the Amoor, and thus save millions in the expense of transportation, and by the facile mode of water conveyance to the ocean, open a market for such of their productions as will not bear the cost of land carriage for such a great distance.

To this trade must be added that which would soon spring up along

the Amoor and its tributaries, and incidentally with the Tartaries, Northern China, Bukaria, and Thibet, sufficient of themselves, with the growing influence of Russia, to swell the trade to many millions more.

The American trade on the Amoor, at present, is confined to three or four houses, whose interest does not prompt them to be very communicative; but as soon as the value and importance of the Amoor are better known and appreciated by American enterprise, it will be but a very few years before our trade will be counted in millions.

The government of Russia is not yet prepared to open the Amoor to indiscriminate commerce, or to European exploration; but by means of its colonies, its post roads, and projected railroads, it is fast advancing the time when an uninterrupted commerce will be carried on throughout the entire extent of their vast empire. Take the immense extent of territory now under the dominion of Russia, to which there is no parallel in the history of the world, and it presents a field in which the grandest ideas may be put practically into execution, where the sovereign power is in the hands of one man having the head to conceive vast designs, and the will to put them into practical operation. And now that he has expressed the determination to arouse Siberia from the trance in which it has slumbered for so many ages, and to open it to a knowledge of the commercial world, who can doubt of its being accomplished, or that it will prove of vast benefit to our country?

A railroad of three hundred miles will connect the navigable waters of the Amoor with the navigable waters of the Lena—the great river of the north. A railroad from Chetah to Kyachta will connect the head waters of the Amoor with that system of railroads extending to Moscow and thence to St. Petersburg; and a railroad from Pekin of four hundred miles to the navigable waters of the Songahree, will bring the teas and silks of China directly to the Amoor. These various railroads are not only talked of, but the Russian Government has now actually in the field a corps of engineers making the necessary surveys for the two first mentioned.

We now come to the consideration of the importance of this movement upon the great inter-oceanic route across our continent. While our members of Congress have been trifling about sectional differences of opinion relative to the Pacific Railroad, the English have been fully awake to the importance of securing to themselves the great carrying trade of the vast commerce destined to come down the Amoor and cross the American Continent; and already a company has been chartered in England, with a capital sufficient to construct a continuous line of railroad from Halifax to the Pacific Ocean. While the American people have been astonished at the puerile debates of grave Senators attempting to prove that it is too cold and sterile a country to construct a railroad on the line surveyed by Governor Stevens, the English have been quietly surveying a railroad route *north of the forty-ninth parallel*, and by a recent report of Professor Pallisser, who for two years has been engaged on the survey, we find that the country is "eminently adapted for railroad purposes." Vancouver's Island is the point designated as the western depot, and here it is announced, officially, by the colonial office, to be the determination of the English Government to found the "Liverpool of the Pacific." To the Straits of Fuca, therefore, may we look as the point where the commerce of the Amoor must eventually reach our Pacific shores, both on account of its being the nearest portion of our territory to the Amoor, and from the fact, before mentioned, of the determination of

the English to bring their great India and Chinese trade to their possessions contiguous.

The distance of San Francisco from the Amoor is four thousand two hundred miles, while the Straits of Fuca are but three thousand six hundred.

Although it is almost certain that the English will have a road opened before we can expect a majority of members of Congress to act upon the great subject of a road within our borders, still we have a means within our reach, which, if applied, will be certain to supersede, in part, the delay and expense of a railroad, and could be made available in less than a twelvemonth; this is by the introduction of the camel. Mr. Collins states that they are in constant use between Pekin and Mai-mat-tschin, and are as hardy and tough as the horse; those that he saw in February, 1857, were standing in the open air with their saddles on, with the frost and icicles all about their faces and bodies, the thermometer at the time being 13° below zero. The fact that these camels are acclimated to a cold and mountainous region, and accustomed to traverse mountains, would be a great inducement to their introduction in our cold and mountainous districts between the Mississippi and the Pacific. These camels are capable of carrying a burthen of eight hundred to one thousand pounds, and perform a journey of eight hundred to one thousand miles. The dromedaries, the "swift ships of the desert," are also used for the saddle, and readily travel from one hundred to one hundred and thirty four miles in twenty-four hours. These camels are very cheap—the price being but thirty rubles each, (22½ dollars.) Mr. Collins says in reference to their transportation, that there is not the slightest impediment; they can be brought down the Amoor on rafts and taken to De Castries Bay, from whence they could be shipped direct to Pugets Sound in twenty or thirty days, and evidently at much less cost than the camels imported into Texas from Egypt by Lieutenant Beale.

The introduction of camels will be of incalculable benefit to the thousands of emigrants who desire to cross the rocky mountains for the more genial climate of the Pacific. And now that the great gold discovery in Washington Territory has turned the attention of emigrants to that region, it is not improbable that private enterprise may find it of profit to introduce the camel before our tardy government will turn their attention to the subject.

We have now a military road completed from Steilacoom, on Pugets Sound, to Walla Walla, on the Columbia River; and at this present time Lieutenant Mullan is engaged with a party constructing a military road from Walla Walla to Fort Benton, on the Missouri; and from Fort Benton to St. Pauls is a regular wagon road, used for many years by the American Fur Company.

By the time camels could be introduced, the route through will be opened, and nearly, if not quite, completed.

This whole subject is one of momentous interest to the commercial world, and one that commends itself to the earnest and careful consideration of American statesmen; and it is to be hoped that before the next session of Congress, our Senators and Representatives will have informed themselves by a purusal of Mr. Collins' valuable report, so as to be able to take some prompt measures to secure this vast commerce to our country, and not allow ourselves to be outstripped in the race of competition by our northern neighbors. J. G. S.

Art. IV.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LVI.

PHILADELPHIA, PENNSYLVANIA.

LOCATION OF PHILADELPHIA—JUNCTION OF THE SCHUYLKILL AND DELAWARE—DEPTH OF WATER—MINING REGION—POPULATION COMPARED WITH NEW YORK—FOREIGN POPULATION—AGRICULTURAL AND MANUFACTURING PRODUCTS OF THE STATE—CAPITAL AND HANDS EMPLOYED, NEW YORK AND PHILADELPHIA—IMMIGRANTS—RAILROADS, COST OF—TRADE OF THE WEST—CANALS—COAL TRADE—ITS VALUE—INFLUENCE OF MANUFACTURES—INTERNAL EXPORTS OF PHILADELPHIA—EFFECT OF RAILROADS—CORN EXCHANGE REPORT—BUFFALO AND OSWEGO TRADE—BANKING IN PHILADELPHIA—SMALLNESS OF CAPITAL IN PHILADELPHIA—FACILITIES IN NEW YORK—BANKS ESSENTIAL TO TRADE—EVIL EFFECTS OF USURY LAWS—BOARD OF TRADE ON BANKS—ABOLITION OF USURY—THE FUTURE OF PHILADELPHIA.

In a former number of this Magazine, (Jan., 1846,) we treated at some length of the history and position of this great commercial and manufacturing emporium. The city occupies a commanding position on the peninsula between the Schuylkill and the Delaware, which prolongs its course 100 miles to the sea, and gives depth of water for the largest merchant ships at the wharves, while the Schuylkill connects it with the mining region. Besides these natural advantages, the enterprise of the citizens has conferred upon it a number of canals and railroads, which feed its commerce, and facilitate its great mining and manufacturing industry. If New York is the first commercial city of the Union, it may be doubted whether it ranks before Philadelphia as a mining and manufacturing center. The construction of artificial means of communication gives to Philadelphia many advantages, as compared with New York, which the latter derived from nature. The cities of New York and Boston were settled some sixty years before Philadelphia; nevertheless, at the close of the seventeenth century, Philadelphia had 300 houses, Boston 900, and New York 384. The population of the three cities has progressed as follows:—

Years.	Boston.	New York.	Philadelphia.
1684	6,300	2,600	2,500
1730	13,000	....	10,000
1750	15,731	10,881	15,000
1770	15,520	.....	24,600
1790	18,038	33,191	42,520
1800	24,937	60,489	70,287
1810	33,787	96,373	96,664
1820	43,298	123,706	112,773
1830	61,392	202,589	161,410
1840	83,979	312,710	220,423
1850	138,788	515,547	340,045
1855	162,629	629,904	423,000

Thus Philadelphia has beaten Boston in the race, and if it has fallen behind New York in numbers, it must be ascribed, not so much to the greater growth of New York business, as to the agglomeration of immigrants in this great point of debarkation. The national census for 1850 gives the nativities of the State populations, and if we take the States of Massachusetts, New York, and Pennsylvania, we find the following proportion of foreign born citizens in each:—

	Massachusetts.	New York.	Pennsylvania.
Foreign born	163,598	655,224	303,105
Native	721,852	2,393,101	1,913,055
Total	985,450	3,048,325	2,258,160

Thus in Massachusetts nearly 17 per cent are foreign born; in New York, nearly 22 per cent; and in Pennsylvania but little over 13 per cent. In each State more than half the foreign population live in the leading cities, and the inhabitants of Boston and New York are more than half foreign born. These people do not by their numbers add much to the industrial or material wealth of the localities, forming, as they do, mostly the non-producing classes. Thus, of the New York foreigners, 175,735 are of Irish birth, and their occupations are mostly domestic. This socially gives a greater supply of house servants than in Philadelphia, but adds little to the real prosperity of the place. If we compare the State of New York with that of Pennsylvania, by the national census, we have results as follows:—

AGRICULTURAL AND MANUFACTURING PRODUCTIONS IN NEW YORK AND PENNSYLVANIA.

AGRICULTURE.	New York.	Pennsylvania.
Acres of improved land	12,403,971	8,628,619
Acres of unimproved land	6,705,992	6,294,728
Cash value of farms	$454,526,792	$407,876,099
Value of farming implements and machinery	$22,084,914	$14,722,541
Number of horses	447,041	350,393
" asses and mules	963	2,259
" milch cows	931,314	530,224
" working oxen	178,972	61,527
" other cattle	760,356	562,195
" sheep	3,454,400	1,822,357
" swine	1,011,407	1,140,316
Value of live stock	$74,520,829	$41,500,053
Bushels of wheat	13,121,103	15,367,721
" rye	4,150,182	4,805,160
" Indian corn	17,869,606	19,845,214
" oats	26,547,022	21,538,156
Pounds of tobacco	83,612	912,651
" wool	10,043,660	4,481,570
Bushels of peas and beans	741,214	55,231
" Irish potatoes	15,374,887	5,980,732
" sweet potatoes	33,511	52,172
" barley	3,582,378	165,584
" buckwheat	3,181,777	2,193,692
Value of orchard produce	$1,761,567	$728,389
Gallons of wine	9,175	25,590
Value of produce of market gardens	$906,127	$688,714
Pounds of butter	81,408,167	39,878,418
" cheese	49,290,744	2,505,034
Tons of hay	3,724,897	1,818,970
Bushels of cloverseed	88,206	125,930
" other grass seeds	96,098	52,913
Pounds of hops	2,536,277	22,088
" flax	940,687	528,079
Bushels of flaxseed	57,974	41,650
Pounds of silk cocoons	1,774	285
" maple sugar	10,358,063	2,326,525
Gallons of molasses	56,538	50,652
Pounds of beeswax and honey	1,759,210	837,509
Value of home-made manufactures	$1,282,351	$749,136
Value of animals slaughtered	$13,573,893	$8,219,848
Tons of dew-rotted hemp	.....	282
" water-rotted hemp	.....	2,000

MANUFACTURES.

	New York.	Pennsylvania.
Cotton, capital	$4,176,920	$4,528,925
" bales used	37,778	44,162
Coal, tons used	1,539	24,189
Raw material, value	$1,985,973	$3,152,530
Number of hands, male	2,708	3,564
" " female	3,478	4,099
Value of product	$3,591,989	$5,322,262
Sheeting, yards	44,901,475	45,746,790
Woolen, yards	7,030,604	5,322,866
" cloth, yards	7,924,252	10,099,234
" capital	$4,459,370	$3,005,064
Pounds of wool used	12,538,286	7,560,379
Value of materials	$3,838,292	$3,282,718
Pig iron, tons	23,022	285,702
" value of	$597,520	$6,071,513
" capital in	$605,000	$8,570,425
Castings, tons	104,588	57,810
" value of	$5,921,980	$5,354,881
" pigs used, tons	108,945	69,501
" capital in	$4,622,482	$3,423,924
Wrought-iron, tons	13,636	182,506
" value	$1,423,968	$8,902,907
" pigs used, tons	8,530	163,702
" raw material, value	$838,314	$5,488,391
Coal, tons	.....	3,500,000

These are the results by the national census of 1850. New York has since then declined in some of her resources, according to the State census of 1855. The number of sheep, and pounds of wool shorn, is less. It is to be borne in mind, however, that the State of New York is tapped at Albany by the Boston railroads, for the benefit of that city, while Philadelphia is the only center of a vast and growing back country, the connections of which stretch far to the West, with the same or greater facilities than New York enjoys, since the latter cannot reach the West with her railroads except through Pennsylvania. If we take the population of Philadelphia County and compare it with New York County, the results are as follows:—

	Philadelphia.	New York.
Population, 1850	408,762	515,547
Capital in manufacturing	$31,884,245	$34,232,822
Value produced	$60,494,575	$105,219,308
Hands employed, males	51,254	53,703
" " females	15,220	29,917

In proportion to population, the result is by much in favor of Philadelphia; in respect to capital invested and hands employed, these figures are more accurately ascertained than the annual value of products, which, more or less, is conjectural. It would, then, appear that the number of productive male operatives in Philadelphia is nearly as great as in New York, a fact which speaks loudly in favor of the progressive wealth of the former city, because in all labor there is a profit, which does not fail to react in a two-fold ratio upon the accumulation of wealth. This is evident in the fact to which we have alluded above, viz., that although New York had an immigration averaging 1,000 per day, of whom numbers remain, yet the number daily employed in producing wealth is as great in Philadelphia, where immigrants are far less numerous. The extension of the western connections of Philadelphia are illustrated, to some extent, by the movement of the emigrants.

During the year 1857, 22,253 emigrants were sent over the Pennsylvania Railroad. A large portion of them came on from New York, preferring this route to either the New York and Erie or the New York Central railroads. Of the entire number, 15,224 were for the Northwestern States and Territories. The extra baggage paid for amounted to 687,904 pounds.

During 1856, 21,624 passengers were dispatched from Philadelphia by emigrant trains. Of this number, 11,715½ were from New York; 6,361 were ticketed for Pittsburg and intermediate stations. The extra baggage paid for was 704,428 pounds.

In 1855, 20,217 emigrant passengers were sent from Philadelphia. Of this number, 11,049 arrived in that city from foreign ports, and 9,168 from New York; 11,003 were ticketed to Pittsburg, and 10,772 were destined for the extreme West; 824,570 pounds of extra baggage were paid for.

In 1854, 23,948 emigrants passed West; 6,357 were for points beyond Pittsburg—799,774 pounds of extra baggage were paid for.

The railroads centering in Philadelphia are as follows:—

PENNSYLVANIA RAILROADS.

	Miles.	Cost.		Miles.	Cost.
Reading	93	$19,004,180	Westchester	33	$1,348,312
Baltimore	98	7,979,466	Camden and Amboy	63	4,950,592
Columbia	80	5,277,278	Philadelphia & Trenton	30	1,000,000
Media	13	600,000	West Jersey	9	200,000
Norristown	17	4,791,548	Camden and Atlantic	60	1,738,171
Germantown	7	1,719,812			
Northern Pennsylvania	64½	5,106,342	Total	567½	$58,716,201

These roads radiate from Philadelphia to almost every point of the compass, and the communication is prolonged by other roads to the remotest sections, placing the city in connection with all points of the Union on terms as feasible as are enjoyed by the most favored city. In relation to the influence of railroads, the Corn Exchange Report has made some judicious remarks.

The railroad system of Pennsylvania is still incomplete, and though progressing at a rapid rate, scarcely yet foreshadows the great future. A hiatus of a few unfinished miles of track impairs the usefulness of a long line of road. The absorption of capital and labor in these great undertakings is so vast that we cannot expect to stride at once from their conception to their execution. The railroad mileage of Pennsylvania shows an increase for 1856 of 426 miles, which is greater than that of any of her sister States. For 1857 it is supposed the increase will be 500 miles. New York constructed only 34 miles of road during 1856. She has nearly completed her railroad system, and is now receiving the benefit. She has kept before us with her roads, as she did with her canal, but we are sturdily struggling after. When the Pittsburg and Steubenville, and the Steubenville and Indiana roads shall have been completed and equipped, when our connections with the Southwest by the Hempfield, and with the Northwest by the Sunbury and Erie, and other routes now in progress, shall have been formed, we shall possess an access to the great interior, surpassed by none. Already we can boast of an admirable connection with the lakes, by means of the Catawissa, Williamsport, and Elmira railroads. Last year we welcomed in this hall a deputation of gentlemen from Rochester, who came to exchange congratulations with us upon the

union of the two cities by iron bands. "The city of Philadelphia is now as near in lineal distance to Buffalo as is New York, and freights from either city to that point are precisely the same." Indeed, to quote a case in point before this Association, the freight on a barrel of flour from Elmira, the point of junction of the New York and Erie Road with the route thence to Philadelphia, is but 50 cents per barrel, against 69 cents from the same point to the city of New York. Here is surely an inducement to enterprise. A present lake connection thus invites our efforts, whilst our own are in progress. It is the lake trade which builds up the palaces of New York, and fills her harbor with the ships of all nations.

Besides the railroads, the following canals minister directly to the trade of the place:—

Schuylkill Navigation	Philadelphia, Port Carbon	108
Lehigh Navigation	Easton, Stoddartsville	84
Union	Reading, Middletown	77
Branch	Junction, Pine Grove	22
Susquehanna and Tide-water, 18 m. in Md.	Columbia, Havre de Grace, Md.	45
Total length		miles 336

These canals cost about $24,000,000, and minister mostly to the mining industry of Pennsylvania. The coal industry of Philadelphia has increased as follows:—

	Schuylkill.	Lehigh.	Other.	Total.
1820	.....	365	.....	365
1830	89,984	41,750	43,000	174,764
1840	452,291	225,318	165,275	865,464
1850	1,712,007	722,622	897,975	3,332,604
1857	2,948,533	1,342,549	2,473,515	6,764,587

Such has been the immense development of the Pennsylvania coal trade in thirty years. Since 1850, the Lackawanna and other regions have taken the greatest development, and the result gives a value of $35,000,000 per annum in fuel supplied to other States, as well as Pennsylvania. Naturally, the prosperity which attends the development of so large an interest has been very marked, and has exhibited itself in those local manufactures, which in New York depend more upon the uncertain influence of the foreign trade. The following figures show the quantities of merchandise sent from Philadelphia to the West over the railroad in the last three years:—

STATEMENT SHOWING THE QUANTITIES OF THE DIFFERENT ARTICLES FORWARDED FROM PHILADELPHIA TO PITTSBURG OVER THE PENNSYLVANIA CENTRAL RAILROAD DURING THE PAST THREE YEARS.

	1855.	1856.	1857.
Dry goods.....lbs.	46,466,115	55,128,101	48,442,442
Groceries	8,987,326	13,385,475	18,755,092
Drugs and medicines	6,080,634	8,231,164	7,064,227
Coffee	7,926,766	9,000,354	5,729,353
Boots and shoes	6,086,425	5,321,451	4,480,376
Books and stationery	2,884,035	3,416,527	2,360,675
Sheeting and bagging	4,506,520	3,495,447	5,374,835
Confectionery and fruit	1,272,208	1,592,139	2,138,853
Copper, tin, and lead	1,404,681	2,229,324	2,373,751
Furniture	1,142,303	1,904,909	2,504,485
Glass and glassware	819,374	822,652	868,914
Hardware	8,167,291	11,154,808	10,008,923
Hemp and cordage	646,232	1,219,069	1,134,838

	1855.	1856.	1857.
Leather	1,784,107	2,063,589	2,428,264
Machinery and castings	3,772,182	4,356,458	6,796,718
Marble and cement	1,365,761	1,862,853	2,577,776
Oil	1,028,562	1,522,134	2,454,893
Paper	555,634	945,018	1,702,745
Pot, pearl, and soda ash	4,071,311	7,309,691	8,332,527
Queensware	3,586,431	5,517,006	4,928,353
Salt	49,268	140,025	73,665
Tobacco	1,569,399	2,008,225	1,880,837
Tar, pitch, and rosin	432,462	707,728	480,656
Foreign liquors	1,315,951	.....	2,974,461
Agricultural implements	286,587	1,352,718	1,391,797
Salt meats and fish	3,789,697	3,399,689	3,552,423
Miscellaneous	1,870,622	689,810	1,739,600
Total	130,099,331	152,903,718	154,336,606

The merchandise sent over the road, distinguishing the way stations from the through traffic, was as follows:—

	1853.	1854.	1855.	1856.
Way stations ...lbs.	21,305,281	26,632,018	26,921,180	31,583,267
Pittsburg	68,604,217	89,935,338	130,099,331	152,903,718
Total.	89,909,498	116,563,356	157,020,511	184,486,985

This gives a large increase in business, but mostly to the West. The new arrangement, by which the public works have passed into private hands, and reduced rates of freight, will, it is supposed, much enhance the quantities that go by these routes. In relation to this Western trade, and the means of reaching it, after showing the course of business through Buffalo and Oswego, the Committee of the Philadelphia Board of Trade on Inland Transportation remark:—"It will thus be seen that Oswego gained in 1856 all that Buffalo lost from the commerce of the previous year. The hides, bacon, pork, beef, lard, and other produce of the West, and the sugar, molasses, iron, steel, castings, coal, salt, leather, crockery, and other merchandise of the East, naturally sought the cheapest channel to their destination, which always lies in the shortest inland transportation from or to the lakes; and this advantage gave the trade to Oswego. It is a fact most encouraging to our friends at the port of Erie to observe how natural advantages of position have enabled Oswego to make such gigantic progress in competition with the vast capital and solid organizations of trade which the city of Buffalo has so long enjoyed. All the grain and produce of the bordering States of Lake Erie, which now find their true outlet at Buffalo, will, on the completion of the Sunbury and Erie Road, be nearer to New York or Philadelphia by that route, with its connections, than by any present channel of trade. The city of Erie will possess especial advantages for this return commerce of the lakes, as the shipping port of the vast deposits of bituminous and anthracite coal of our own State. Such being the facts of the case, is it not important to the citizens of Philadelphia and Baltimore to examine whether a port on Lake Ontario, affording equal or greater facilities than Oswego, may not be secured as a port of entry and outlet for the great lake commerce to our Southern cities? The molasses and sugar of the West Indies, the coffee of South America, the whole range of imported dry goods and merchandise of Europe and the Old World, are all equally accessible to

us as to New York or Boston. The leather, the coal, the iron, steel, and castings of our own State, the crockery and other manufactures of our own city, certainly should be exported directly to the point of demand; for the shortest transit to the consuming market, leaves, of course, the largest profit at the point of production. Why should the mineral wealth and industrial resources of Philadelphia and Pennsylvania be compelled to pay such a heavy tribute to the enterprise of her neighbors, and be forced to the Great West by a circuitous route, dropping golden profits all the way, which fairly belong to the original owner. Once more, therefore, would your Committee earnestly call the attention of the Board of Trade, and our citizens generally, to the importance of transacting directly, and by the nearest ports, our legitimate trade with the lakes. The total commerce of these vast inland seas reached, in 1856, the enormous aggregate of $608,000,000, of which it is believed not one per cent was transacted directly with Philadelphia. Is this our fair representation among the Eastern cities in this shipping and distributing trade? With Kentucky, Tennessee, and the Southwest, we hold a very different position. Why not with the Northwest, to which we are equally near with New York, and nearer than Boston?"

The enterprise and resources of Philadelphia give her a strong hold upon that immensely developed Western trade.

In comparison with the business of the place, the amount of banking capital operating in Philadelphia has been smaller than in New York or Boston. Comparatively, the last returns were as follows:—

	Boston.	New York.	Philadelphia.
Capital stock	$32,243,550	$67,513,000	$11,310,880
Loans and discounts	55,808,453	119,812,407	23,803,903
Specie in bank	9,104,461	33,830,232	6,873,971
Due from other banks	6,357,413	.....	1,552,673
Due to other banks	8,089,162	.....	3,504,300
Deposits	21,570,803	106,803,210	15,857,904
Circulation	6,313,049	7,458,190	2,345,435

In New York the deposits include the sums due banks. This great disparity of banking has attracted attention, and last year the Corn Exchange Association remarked in their annual report:—"The Board has to report that another effort will be made in our Legislature this winter to obtain a charter for the Corn Exchange Bank. The project has received the general sanction of the mercantile community of this city. This need excite no surprise, when we learn by a very recent publication, that the banking capital of New York alone is now $56,000,000, which is more than twice that of the entire State of Pennsylvania. The capital thus invested in Philadelphia at the present time is about $12,000,000. With such modest figures for our own city and State, there is certainly nothing extravagant in the attempt of the Corn Exchange to found a bank under its own auspices. If banking be of any value in facilitating commerce, it is clear that something should be done to lessen the disparity, in this particular, between our city and New York. If communities characterized by the highest degree of mercantile shrewdness and enterprise, freely avail themselves of the use of banks, why shall Pennsylvania and her metropolis be singular in rejecting them? Why must Pennsylvania confine herself to the use of a banking capital no greater than that of little Rhode Island, and Philadelphia seek in New York city banking facilities which cannot be obtained here? We surely stand in need of

all the aid we can command from whatever source, to hold our own amidst the keen rivalry which surrounds us. It is foolish to insist upon idly nursing abstract theories of finance, when present needs demand present aid. Banks have become an essential part of the machinery of modern trade, and we cannot afford the affectation of being superior to the use of them. How would New York city dispose of the great lake trade, now represented by $600,000,000 annually, with a banking capital of $12,000,000? or how would she have acquired and retained it, without multiplying those agencies which give celerity to business transactions? New York State makes use of $100,000,000 of banking capital, variously located where the wants of her commerce demand it. We trust, then, our Legislature will heed the recommendation of Governor Pollock in his late message, wherein he advises a judicious increase in the number of our banks. It is mortifying to reflect upon impediments which needlessly oppose our progress. The fact that New York makes seven per cent a legal rate of interest, whilst we stop at six, opperates to our prejudice. A difference of this kind tends to attract to New York capital which should remain here. It is with pleasure, however, the Board notices the recent introduction into the Senate of Pennsylvania of a bill which virtually repeals the usury laws of this State in their bearing upon mercantile transactions. The uselessness of continuing laws upon the statute book which are almost totally disregarded in daily business, or if observed, yielding no advantage to the trading community which they were designed to protect, is obvious."

The Philadelphia Board of Trade, in its late report, referring to the same subject, remarked as follows:—"In view of the serious financial revulsion which occurred in this country during the last summer, the subject of a reform in the currency and banking system of this State was made a special topic of inquiry and discussion by the association during several recent meetings. With a view to digest the various opinions of members, and arrive at some general, harmonious, and satisfactory plan for effecting the desired end, the different suggestions made were referred to a special committee of thirteen. The chairman of the committee, Mr. Buzby, subsequently presented the following recommendations, as expressing the views of a majority of his colleagues, to wit:—1st. That a general banking law be enacted by the Legislature of the State. 2d. That there should be a right of vote for every share of stock. 3d. That State and United States government stocks be pledged as security for circulation. Other gentlemen of the committee submitted, individually, several distinct projects of reform. The whole matter, being again debated, was finally referred to a special committee of three, with instruction to prepare a memorial to the Legislature."

It is gratifying to remark that the Legislature of Pennsylvaaia has been the first to listen to the voice of her merchants in relation to the usury laws, and the law, as passed by the last Legislature and approved by the Governor, went into effect on the 1st of July. By this law, money can be borrowed and loaned according to the terms agreed upon by the parties. There is no restriction with regard to the rate.

The same measure was attempted in New York, and failed. It is not improbable that the recommendations of the Board of Trade, in relation to banking, will be listened to by the Legislature, and not only the price of money, but the right to use it in every employment, will be freely

conceded by that State. The future of Philadelphia cannot be mistaken. With a central and available location, she has a large, settled population trained in manufacturing; immense mineral resources; railroad connections which give her the command of all parts of the Union; large capital, with great skill, and entire freedom in its use, it is difficult to see why she should be second to any.

Art. V.—BANKING AND THE CURRENCY.

GENERAL PRINCIPLES NOT CARRIED OUT—CREDITS AND REVULSIONS—MONEY STANDARD—OPERATIONS OF BANKERS—ISSUE OF PAPER NOT BANKING—COINAGE A PREROGATIVE OF GOVERNMENT—ISSUERS OF PAPER OUGHT NOT TO PROFIT AT THE EXPENSE OF THE PUBLIC—ALL BANKING SCHEMES BASED UPON PAPER ISSUES—LIMITED LIABILITY IN NEW ENGLAND—CENTRAL REDEMPTION—BANKS OF NEW YORK SHOULD REDEEM AT PAR AT A BANK OF REDEMPTION—M'CULLOCH ON REDEMPTION—NEW ENGLAND BANKS SIMILAR TO CANADA—NEW YORK LAW UNSATISFACTORY—OHIO SYSTEM—INDIANA SYSTEM—BANKS OF SCOTLAND—BANKS OF ENGLAND AND FRANCE—FRENCH BANKS MUST USE GOVERNMENT MONEY ONLY—NO OBJECTION TO THE USE OF SMALL NOTES—FREE BANKING THE MOST PERFECT UNCONNECTED WITH THE ISSUE OF PAPER.

So much has been said and written on the subject of banking, money, and finance, that any attempt at further elucidation appears almost superfluous; and yet mankind are so apt to forget the lessons of experience, and in this telegraphic age so little used to consult the old authorities and experiences, and relying so exclusively upon the principles which their own personal observation teaches, that a little gleaning from opinions which have been held to be orthodox for many years, and applying them to the present position of affairs, may not be uninteresting.

It is remarkable that no one theoretical principle in monetary affairs, particularly in banking, has ever been fully carried into practice, either in England or America. The direct individual interests of influential men or States have prevented this adoption—and although it may be impossible, from these and other causes, to establish a distinct and perfect system of banking, yet we may continue to discuss the principles, and adopt as much as is practicable under the circumstances.

Although aware of the fondness of the commercial world generally for figures, and although it would be quite easy to substantiate any of the positions affirmed in this article, by references to former numbers of the *Merchants' Magazine*, for statistical facts, yet it will be conceded that figures and statistics are only of value in illustrating a principle, and demonstrating a fact, which may often as well be done by inductive reasoning as by reference to them.

The great and generally supposed unprecedented spectacle of a collapse in the commercial affairs of the world, while every element of wealth and prosperity is in unbounded plenty, has taken the great majority of men by surprise, and minds of the deepest thought and in the highest positions have been industriously employed in exemplifying solutions of it. To the general system of credit must be ascribed the periodical revulsions and panics in the commercial world. Banking, as part of that credit system, is responsible for its share of the evil, but ought not to be considered as the cause.

In order to a proper estimate of values of different commodities, we are forced to the adoption of a standard; either that an ounce of tin or silver shall be called a dollar, or an ounce of brass or gold be called a doubloon. A standard must exist, which shall be fixed in the legal estimation of its value, whatever its relative value may become. All civilized nations use gold and silver as standards of value for obvious reasons. Now, when credit will buy products instead of gold, the temptation is to increase the price, and by successive purchases and sales upon credits, bits of paper, whether promissory notes, bills of exchange, or bank notes, used instead of gold, the prices of all commodities gradually increase, till the proportion of real labor-value between them and gold has been carried beyond all reasonable limit. The return to a proper level of prices causes fright, panic, and commercial revulsion. It is unfair and unsound to charge these oft-recurring depressions and revulsions exclusively to the banks and a vicious banking system. The cause lies deeper than that system, be it good or bad, and yet it is doubtless very much increased and intensified by an improper system of banking and bank issues.

The general use and extended operations of banking institutions throughout the commercial world, sufficiently justifies their adoption, and the question of "banks or no banks" is set at rest by their apparent necessity. They are founded upon the system of credit, which commerce has established for its development, and upon the necessity of facilities for the interchange of commodities. Credit is the soul of commerce—it is that which gives life and vigor to the commercial character of men, and enables them to encompass results individually, which, without it, would require the efforts of States and empires to accomplish.

To the credit system the world owes the chief part of its progress during the past two centuries. Notwithstanding the losses which have been occasioned by the failure of many individuals and schemes by its abuse, the generally diffused impetus it has given to labor, thus employing for a practical use labor which otherwise would not have been employed at all, attest its paramount importance. The establishment of banks has had very much to do with the extension of this system, and they are a necessary consequence of it.

The business of banks and bankers is to borrow money from one class and lend it to another, and to transfer credits and moneys from one place and country to another. It ought not to be considered as any part of the business of banks to issue paper money. Credits they may issue, sight or time drafts, or any other means to accomplish the proper transfer of moneys or commodities from one place to another, but the issue of paper for the circulation of a country ought not to be connected with banks or banking privileges. It is the mixture of these powers and privileges which has caused the various *wars upon banks*, which have occasionally occurred, and will occur so long as such a system is continued. These wars upon banks are not justified in any way as against banks, or as against paper money; it is only when they are improperly combined that any justification can be offered for them.

The advantages of the use of paper money has been equally as well established as of banks. The great saving to a community by its use, and the facility of its interchange, render it one of the most important aids to commerce. It is, however, a distinct subject from banking, and ought not to be connected with it. The coinage of gold and silver or

other metals is in all countries held to be a prerogative of government, executed for the public benefit and the public good, and any infraction of this monopoly is treated as forgery. This should be the case also with paper money. The coinage of paper is of the same nature as the coinage of gold. Neither gold nor paper will pass as money till *coined;* when coined they equally pass as money—one as actual, the other as representative; and even here the distinction is not so clear, for the price of stamped gold is really a representative value,—representing the amount of labor necessary for its production, and of the amount of other commodities which it will purchase.

The profits of paper money ought to belong to the whole people. The profits or loss of a gold currency does so belong, and there is no reason why any individuals or corporations should have privileges obtained from the use of the circulating money of a country, which the public do not enjoy. It might be said that the borrower gets the advantage of the loan for aiding and using the circulation, but it is never the borrower who holds the circulation. It is held by those who use it as money, their own capital or means of daily use, precisely as they would use the gold coins it represents. This being the case, it appears evident that some parties monopolize a power and a profit rightfully belonging to the State and the people of the State, and which cannot with propriety be diverted from it.

The coinage of money, either of gold, silver, copper, leather, wood, or paper, rightfully and properly belongs in all countries to the soverign power, and the increase or profit therefrom likewise belongs thereto, and cannot be diverted, without injury to the people and a derangement of commerce. This principle should ever be borne in mind by the inquirer into the subject of banking and the currency, and whenever it is not recognized, a labyrinth of difficulties is sure to be met with in arriving at proper conclusions. All the various schemes and systems of banking projected and established in America, have been based upon the connection of the issue of paper money with banking, and it is entirely regarding the circulation, that all the restrictions and regulations are required. Take away from the banks of the United States the power of issuing paper money, and the whole difficulty of banking vanishes. Banks would borrow and lend money as individuals, and be answerable to their shareholders and creditors as any other individuals or corporations. Attaching the public right of issue of paper money or coin to these institutions, has given rise to all the abuse of such issues, and to the various schemes which have been devised for their security. Hence, the various banking laws and systems of the different States and of other countries.

The banks of New England are each incorporated with limited liability, and no arrangement for a safety fund, but they have by law or common consent a central point of redemption, which appears by experience to be of much more importance even than a central point of issue. These banks, without any close restrictions, have sustained themselves generally better than those of other States.

The importance both to the public and to the banks of this plan of redemption has been somewhat overlooked. There does not appear any valid reason for the redemption of notes at the place of local issue, provided there is a certainty of redemption at the central point. Coin is seldom required at the outskirts of commerce, and when it is, it can be

obtained by the expense of carriage. There does not appear a good reason, therefore, for compelling the New York State banks to redeem its gold at their counters, while they possess bonds of the State in the Controller's office. If the New York laws relating to banks were so altered that every bank should redeem its issues at par at a bank of redemption, in Albany or New York, the bank of redemption being a branch of the Controller's department, or subject to his control, and should be relieved from the liability to redeem at their counters, it would be of great service to the banks, and a real benefit to the people. This principle of a central point of redemption is of the utmost value, in considering the question of circulation, and were all the banks of the United States compelled to redeem at one of eight or ten points, it would benefit the circulation of the country in a very great degree. Under the present circumstances, it is impossible to tell when the currency is inflated. The banks of the city of New York may be called upon for gold in consequence of a surcharged currency, while the banks of the State and of other States are expanding their issues. No control can be had—no barometer established, while many points of issue and redemption are permitted. The system of individual bank issues also leads to the troublesome practice of creating balances against each other on the part of country banks, picking up each other's circulation, and maintaining a constant war upon one another, to the detriment of the general commerce of the country.

Mr. McCulloch very clearly explains this principle of issue. In speaking of the effects of the commercial revulsion in England in 1837, when the merchants and manufacturers of Birmingham complained to the government, that "suddenly, with all the elements of prosperity remaining unimpaired, a state of things has succeeded which threatens the most alarming consequences to the community," Mr. McCulloch says:—"Certainly, the Legislature will most strangely neglect its duty if it allows a system productive of such fatal consequences to continue to spread its roots and scatter its seeds on all sides. As long as any individual, or set of individuals, may usurp the royal prerogative, and issue money without let or hinderance, so long will it be issued in excess in periods when prices are rising and confidence high, and be suddenly and improperly withdrawn when prices are falling and confidence shaken. All the causes of fluctuation inherent in the nature of industry, are aggravated a thousand fold by this vicious system, at the same time that it brings many new ones into existence. There is not, in fact, any reason for supposing that, if our currency had been metallic, or made to fluctuate exactly as it would have done had it been metallic, the difficulties in which we were involved in 1836 and 1837 would never have been heard of. The inordinate increase of banks, of money, and of facilities for obtaining money in the spring of 1836, contributed powerfully to the rapid and uncalled-for increase of prices, the multiplication of wild and absurd projects, and the excess of confidence which distinguished that period; at the same time that, by bringing on a fall of the exchange and a drain for bullion, they insured the subsequent revulsion. If it be wished that the country should be kept forever under an intermittent fever—now suffering from a hot, and then a cold fit, now in an unnatural state of excitment, leading to, and necessarily ending in, an unnatural state of depression—the present money system is the best possible. But we believe the reader will

agree with us in thinking that a fever of this sort is not more injurious to the animal than the political body. So dangerous a disorder is not to be trifled or tampered with. This is not a case in which palliations and anodynes can be of any real service. If a radical cure be not effected, it will go far to paralyze and destroy the patient. Now, to accomplish this radical cure, that is, to make sure that the fluctuations of the currency shall not exceed those which would occur were it wholly metallic, it is indispensable, as already stated, that all local notes should be suppressed, and the issue of paper confined entirely to one body. The exacting of security previously to the issue of notes would guaranty the holders from loss, and be in so far advantageous; but it would not hinder that competition among issuers, that is so very injurious, nor prevent the supply of paper being at one time in excess, and at another deficient. If we would provide for that unity of action, and that equality of value, that are so indispensable, we must make an end of a plurality of issuers. If one body only were intrusted with the issue of notes, it would be able immediately to narrow the currency when bullion began to be exported, and to expand it when it began to be imported. But nothing of the sort must be attempted so long as it is supplied by more than one source."

In the New England States the system upon which their banks are established is very much the same as in Canada—incorporated companies, with limited liability, with power to issue paper money under certain restrictions, but without any securities deposited with the public.

The State of New York boasts of a general banking law, which, when established, was thought to be the perfection of systems, but it has proved the most expensive and harrassing to the banks, and the most unsatisfactory to the public, of any in existence. The State bank system of Ohio, Indiana, &c, which has gained great favor throughout the Western States, is the nearest to sound principles of any yet established in the United States.

These State banks are banks of issue, issuing all the paper money circulating within the State to their various branches. The branches are the real banks, and furnish the bank of issue, called the State Bank, with a percentage of the issues received by them, in good State stocks, which are held by the State Bank as a safety fund for the redemption of the notes of any insolvent branch. This is an attempt to combine the advantages of the old New York Safety Fund System with the General Banking System.

The main feature in these systems, that appears objectionable, is the want of a central point of redemption. They have established the central point of issue, but have not foreseen the value of the central point of redemption, called in New England the Suffolk Bank System. What is required is some barometer by which to ascertain whether the currency is redundant or not, whether it is surcharged or depleted. It is impossible to do this with various points of issue and redemption, for while one is contracting its issues and depleting the circulation, another is expanding and surcharging it. By a central point of issue and redemption, the most perfect barometer is gained; when the currency is too great, it returns upon the issuer for gold; when it is not sufficient for the purposes of trade, gold is brought in for it, and thus a proper equilibrium is established.

The banks of Scotland are established, in respect of their powers of circulation, upon much the principle of the New England and Canada

banks, but the shareholders, being individually liable, gives them a character very different from any in America.

The great national banks of England and France combine the nearest approximate to a perfect banking system. The Bank of France, particularly, has delegated to it by the government the sole power of issuing paper money in that country. No other institution or individual is allowed to issue any paper in the shape of bank notes. Thus every vibration in the commerce of the country, and in the circulation of the currency, is immediately felt at the bank, where alone the bills are reduced, and its consequences provided for.

As many banks and banking establishments may be formed throughout the country as individuals or associations please, only they must use the gold coins furnished by government through the mint, or the paper money furnished also by it through the Bank of France, in their dealings. For this paper money they may lodge such securities as the bank may accept.

Under such an arrangement there does not appear to be any foundation for the objection to the use of small notes. Notes of one dollar or a thousand dollars will have like effects, and would be the cause of no more difficulty in times of pressure, one or the other. If no bills were allowed to be issued under twenty dollars, for instance, it is manifest that a sufficient sum *only* in gold will be kept to supply the daily wants of the community; all the rest will be turned into paper, and when a time of pressure arrives, the gold cannot be relieved from its daily purpose, without the issue of small notes to take its place; hence, the small notes would have been of as much advantage as the gold for daily use.

From the premises here laid down, it would appear that the most perfect form of banking is an entirely free one, unconnected with the issue of paper money. This should be confined to the government, or to a single agent employed for the purpose. This agent might be allowed to issue notes to circulate as money on specified terms to all banks or bankers in the country, accepting as security therefor such a proportion of stocks, bullion, and real estate as thought desirable, and reserving enough profit on the circulation to make up unavoidable losses, and paying the excess of profits of the circulation to the government to whom it properly belongs.

The principles here laid down have been, in their main features, fully and ably advocated by the leading political economists of the last fifty years. From the time of William Pitt downwards, in England and France, they have met the support of the ablest men; Lord Liverpool, Mr. Ricardo, Mr. Huskisson, Sir Robert Peel, C. P. Thomson, Lord Overstone, &c., &c., have fully vindicated their truth.

Mr. C. P. Thomson, (the late Lord Sydenham,) when Governor-General of Canada, finding the country new, and its financial affairs in an embryo state, recommended a bank of issue to the Legislature, in accordance with these theoretical principles, but found the interests of capitalists in the banks then in existence too strong for its adoption. Nothing at the present time would be more conducive to the permanent prosperity and regularity of the trade and commerce of this continent, than the establishment in the United States and Canada of a few central banks of issue to control, under proper regulations, the paper circulation of the whole northern part of the continent.

Suppose, for instance, that one point of issue and redemption be at

Montreal, and Boston, New York, Philadelphia, Cincinnati, Chicago, St. Louis, New Orleans, Charleston, and Baltimore, others. It is evident that a redundancy of paper currency, and an inflation of prices and of trade, would be felt at these ten points, and generally together, and by a comparison of their statements, each with the other, a regular and just opinion could be formed of the course of trade, and depressions and inflations provided against. Until some such plan is adopted, it will be in vain to look for any satisfactory results from the banking institutions of the United States or Canada. It may suit the policy of some of our statesmen to declaim against all paper money, but the advantages of its use will always insure its maintenance, and the rational way to treat it is to put it in its proper place, and regulate it by a proper barometer.

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LIBEL ON THE SCHOONER COERNINE.

In the United States District Court—May term. Before Judge Betts. William E. Collis and William Mitchell *vs.* the schooner Coernine, Fraley W. Moore, Simeon J. Lathan, and Lorenzo A. Webb, claimants.

The libelants, ship chandlers and traders, residents and doing business in New York, were in the habit of dealing on credit in the line of their trade with Gilbert L. Moore, a resident of Wilmington, in North Carolina, engaged in building and sailing vessels, and other transactions, in that State.

The correspondence between those parties proves that such course of dealing was in use between them anterior to the month of September, 1856, and was continued subsequently on open accounts of debit and credit. At that time, in an interview between them in New York, it was agreed that the libelants should supply the equipments and outfits necessary to complete the schooner Coernine, which Moore was about constructing at his residence in North Carolina; and that they should furnish whatever should be required to that end upon the written or verbal orders of Moore.

On the 5th of March, 1857, Moore wrote the libelants from Wilmington by Samuel D. Hines, introducing the latter as the intended master of the Coernine when completed, and requesting that his memoranda of materials and supplies should be filled by the libelants "at as low rates as possible," the large amounts of course on the regular times, "in order to give the vessel some time to make a part before it is due;" "the small memoranda of which I shall expect to pay between one and three months;" for instance "the bill for making sails, iron work, &c." The same letter had advised the libelants that Moore would, between July and September, pay them a considerable amount for the purchase of the sails and rigging for the Coernine; those, as it appears from the correspondence between the parties, being articles not dealt in by the libelants, but with some others were to be purchased by them in New York for Moore.

By letters of dates of March 14 and 20, the libelants advised Moore that they were hastening to fulfill all Capt. Hine's orders, that hemp, sails, blocks, &c., had been purchased by them. On the 28th of March they further wrote that all the goods were then ready, and requested a remittance of funds, as they had to make large purchases, and their payments for duck, &c., "then and for the next sixty days will be heavy."

By letter of April 8, the libelants informed Moore that the goods were all on board the vessel in New York for transportation to North Carolina, and that they inclose "bill of lading and amount of supplies, amounting in all to

$4,074 35;" "the cash bills, amounting to $916 77," they desired him to remit immediately.

On the 11th of July, 1857, Moore executed at North Carolina a promissory note to the libelants, or order for $600, payable at ninety days, and on the 31st of July, at the same place, another note for the same amount, ($600,) payable in ninety days thereafter to the libelants or order; and on the 24th of September following, another promissory note, dated at New York, payable to libelants or order for $1,000, four months after date.

These several promissory notes were produced in open court by the counsel for the libelants on the hearing of the cause, as having been given for the debt in prosecution, and were delivered up to be canceled.

It appeared in proof that the materials supplied by the libelants were necessary for the construction and use of the schooner, and could not have been procured at the place where she was built and fitted out. They were supplied for her service, and after her completion she was dispatched by Moore, her owner, from Plymouth, North Carolina, her port of registry, upon a series of foreign voyages. June 2, 1857, she sailed for Guadaloupe, thence to Marie Galante, thence to St. Pierre, Martinique, thence to the Island of Nevis, on trading voyages; thence to St. Thomas, where she was chartered for Porto Rico and New York, at which last place she arrived in the month of August, remained in this port fifteen days at quarantine, and eight days afterward in discharging and reloading, and on the 22d day of September sailed again on round charters by the way of the West Indies back to New York, where she arrived January 26, 1858, and the libel in this cause was filed the next day. The libelants were personally apprized of the vessel being in this port within two or three days after her first arrival here, and also knew the whole period of her continuance in port. The libelants charged that the schooner being at Wilmington, North Carolina, and in want of ship chandlery, sails, rigging, materials, labor, and supplies, to render her seaworthy and fit to navigate the high seas and proceed upon a voyage to the West Indies, they furnished and delivered such articles to the vessel at that place, &c. These claimants intervened and set up a title to the vessel under an assignment of her in trust for the payment of debts made to them by Gilbert L. Moore, prior to the commencement of this action; and by formal answer they denied every material allegation in the libel upon which the action is based. They especially denied the jurisdiction of this court over the subject matter, and insisted on the argument upon an explicit judgment upon that branch of defence, because of its eminent importance to the interests of navagation and commerce in American vessels, and because it is supposed the law governing that subject is obscure or indefinite in its provisions, or has become seemingly so, under the rules by which it is interpreted and administered by the courts.

There was also a separate intervention and defence to the action in the name of James C. Willet, sheriff of the city and county of New York, who interposed and claimed the vessel by virtue of process of attachment out of a State court in favor of a creditor of Gilbert L. Moore, the alleged owner of the schooner. This branch of the defence was disposed of at the last May term of the court, on an issue in law, (24 vol., MSS. Decisions, 40,) and will not be further regarded in the report of this case.

The case was argued upon the pleadings and proofs by Messrs. N. Hoxie and E. C. Benedict, for libelants, and Messrs. J. Gerard, Jr., and B. D. Silliman, for claimants.

JUDGE BETTS—The libelants place their right of action in this cause upon the grounds that the transaction between them and Gilbert L. Moore, in relation to the outfit and supply of materials for building and equipping the schooner Coernine, was a maritime contract, concerning a foreign vessel and her employment in navigation and commerce, and that a debt was thereby created, which became by implication of law a lien upon the vessel, accompanying her wherever she went; or that by the local law of North Carolina, under which she was built, registered, and owned, and where the supplies were used, the schooner was made subject to a lien for that debt, which, by the principles of the general maritime law, is enforceable in this court.

The position on the part of the claimants is, that this court has no jurisdiction over the subject matter of the suit in any aspect of the case under which it is presented by the pleadings and proofs, and the cases of Pratt *vs.* Reid, (19 How. R., 359,) and the claimants of the steamboat Jefferson *vs.* Beers, *et al.*, (not yet published, but a copy of which has been furnished me,) are relied upon as having settled, by the solemn adjudications of the Supreme Court, the law definitively to that effect.

In view of the magnitude of interests depending upon the general question in this district, and its importance practically in the every-day business dealings within the port between mechanics and material men, and shipowners and masters, it is deemed desirable that this specific point should be made the prominent subject of consideration and decision; especially if those judgments of the Supreme Court have worked any change in the rules heretofore applied to this class of cases, and have diminished the securities formerly enforced in this court in behalf of that order of creditors.

In the first place, it is important to consider what were the special features in the case of Pratt *vs.* Reed, adjudged upon by the Supreme Court, and what character was affixed by that decision to the contract or credit in regard to necessaries supplied a foreign vessel on a voyage, in order to give them a privilege or lien against the vessel.

The steamboat Sultana was employed on the Western lakes, in the transportation of passengers and freight. She was enrolled and owned at Buffalo, and a debt was contracted at Erie, in Pennsylvania, by her owner and master, for supplies of coal to her during the performance of a succession of trips for a period of about two years. It was assumed by the court to have been necessary for the navigation of the vessel that she should be furnished with coal on those occasions, although the proof on that head was held to be loose and indefinite. The libelant furnished her coal in that manner when demanded, from June, 1852, to May, 1854, and rendered a bill therefor, containing a running account of debits and credits. The owner of the boat usually navigated her as master, and was present when the supplies were furnished. When he was not present they were furnished at the request of the person in command. The answer denied that the supplies were furnished on the credit of the boat, and averred they were furnished on the credit of the master.

The court laid out of view the inadequacy of proof that the supply of coal was an actual necessity to the navigation of the vessel, within the Admiralty rule, at the time it was supplied her, because of the more serious difficulty in the case of the libelant, in the entire absence of any proof to show that there was also a necessity at the time of procuring the supplies for a credit upon the vessel, which was asserted by the court to be as essential as that of the necessity of the article itself. It seems to be supposed, the court remarks, "that circumstances of less pressing necessity for supplies or repairs, and an implied hypothecation of the vessel to procure them, will satisfy the rule, than in a case of a necessity sufficient to justify a loan of money on bottomry for the like purpose. We think this is a misapprehension."

The court proceeds to justify the position of law taken by them on those facts, by reasoning against the sufficiency of the facts to authorize an implication of a lien in the case, and by an intimation strongly disfavoring the increase of maritime liens of this class, upon the lakes and rivers, as tending to perplex and embarrass business rather than furnish facilities to carry it forward, and declaring that such liens should be strictly limited to the necessities of commerce which created them.

The jurisdiction of the court over the question is one and the same when it concerns the business of commerce and navigation between ports and places in different States and Territories upon the lakes and navigable waters connecting the lakes, as is possessed and exercised in case the vessels are employed in navigation and commerce upon the high seas or tide-waters within the Admiralty and maritime jurisdiction of the United States.—(Act of Congress, Febuary 26, 1845, 5 statutes at large, 726.)

The similitude, and indeed identity, of the present case with that of Pratt *vs.* Reed in their leading features, appears thus to be nearly exact. In both instances the supplies and necessaries were obtained in ports of States foreign to those of which the vessels respectively belonged, and were procured through the direct contract and orders of the owner, who also in each case was master of the vessel at the time. In neither case was there any stipulation for direct payment of the purchase prices at the time of purchase, nor any terms of credit agreed upon between the parties. The decision in Pratt *vs.* Reed, therefore, in no way rested upon a question of implied authority in a master to pledge a vessel on such a credit, because the dealing was by the owner directly; but the controlling consideration which governed the case was, that however imminent the necessity of the vessel for the supplies might be, the case could not be brought within the cognizance of the Federal Court, unless it appeared that the necessity was equally urgent that the responsibility of the vessel should be pledged for payment.

It seems to me, therefore, that the case of Pratt *vs* Reed is susceptible of no other interpretation than that an implied lien for stores, materials, supplies, or outfits of any kind, can never be raised against an American vessel in the courts of the United States upon the mere fact that they were furnished her on credit out of her home port and are necessary to her navigation and employment. The further fact must be shown that the supplies could not be obtained on the personal credit of her owners. That principle covers and negatives every claim to a hypothecation of the schooner in security of the debt in the present case. It is unnecessary to go further and say the doctrine of the decision significantly implies that the act of the owner of the vessel, in personally incurring the debt and obtaining the credit, has no higher effect in imparting a lien than the act of a master solely, for the entire dealing in that case appears to have been conducted or sanctioned personally by the owner himself.

The particulars in which the present case is distinguishable from that, weaken instead of strengthening the presumption that both parties contemplated, at the time of the sale and purchase of the materials furnished by the libelants, any lien therefor upon the schooner; but for the reasons before suggested, I do not recapitulate and press the considerations arising out of the pleadings and proofs tending to show that no liability against the vessel was in view of the parties at the time, and that the dealing was most probably on the footing of their accustomed transactions, and wholly one of personal credit. One distinction, however, ought not to be passed by, which is, that the materials, labor, &c., obtained in this case were not for the necessary repair of this schooner, but were for her original construction, she then being on the stocks in a course of building.

It is intended to dispose of this case in subordination to the judgment of the Supreme Court in the two recent cases referred to, and to restrain it carefully within the fair and plain import of the doctrines laid down in those decisions, without any inquiry into the correspondence or disaccord of those judgments, or either of them, with the rule of law antecedently prevailing in maritime courts, upon those subjects. It is not the province of this court to canvass the reasons upon which those decisions are founded, or attempt to measure their validity by any supposed inconsistency or incongruity with prior doctrines of the Supreme Court. They stand the final existing law which governs analogous facts coming within their just scope and meaning.

The People's Ferry Company of Boston, claimants of the steamboat Jefferson, appellants, *vs.* Joseph Beers and David Warner, assignees of B. C. Terry, was a case decided by the Supreme Court in December term, 1857. A vessel owned in New Jersey, was built and supplied with materials in that State by the libelants, residents in New York, on credit, and without any express pledge of the vessel for the debt.

The propositions of law determined by the court, and the facts to which they are applied, are specifically stated by the judge who delivered the opinion of the court.

"The only matter in controversy is (say the court) whether the district courts

of the United States have jurisdiction to proceed in Admiralty, to enforce liens for labor and materials furnished in constructing vessels to be employed in the navigation of waters to which the Admiralty jurisdiction extends.

"We have the simple case," continues the judge, "whether these ship carpenters had a lien for work and materials that can be enforced *in rem.* in Admiralty.

"The question presented involves a contest between the State and Federal Government. The latter has no power or jurisdiction beyond what the Constitution confers. The contest here is not so much between rival tribunals, as between distinct sovereignties, claiming to exercise power over contracts, property, and personal franchises.

"What were meant in 1789 by 'cases of Admiralty and maritime jurisdiction,' must be meant now. What was reserved to the States to be regulated by their own institutions, cannot be rightfully infringed by the General Government, either through its legislation or Judiciary Department.

"The contract (in the case) is simply for building the hull of a ship, and delivering it on the water. 'She was constructed and delivered according to the contract.' 'The Admiralty jurisdiction is limited to contracts, claims, and services purely maritime, and touching rights and duties appertaining to commerce and navigation.' Judge Hopkinson, in 1781, declared, as respects ship-builders, that the practice of former times doth not justify the Admirality's taking cognizance of their suits. 'We feel warranted in saying that at no time since this has been an independent nation has such a practice been allowed.'"

The judge adds:—"It is proper, however, to notice the fact, that district courts have recognized the existence of Admiralty jurisdiction *in rem.* against a vessel to enforce a carpenter's bill for work and materials in constructing it, in cases were a lien had been created by the local law of the State where the vessel was built. Thus far, however, in our judicial history, no case of the kind has been sanctioned by this court."

This adjudication very explicitly determines that a contract in a port of one of the United States, to construct a vessel in a port of another State by actually building her, or supplying materials for such construction, is not a maritime contract creating a lien upon the vessel, for the value of labor or supplies, which can be enforced in a Federal Court. That the debt or contract does not make a case of Admiralty and maritime jurisdiction within the meaning of the Constitution and laws of the United States, and if it may be any way cognizable in those tribunals, it is only by force of State legislation imposing the debt as a lien on the vessel, which obligation the National Court executes and carries into effect; but the same judgment emphatically declares that no instance of such proceedings, which appear to have occurred in some of the inferior National Courts, has been sanctioned by the Supreme Court.

I had never supposed the jurisdiction of the United States District Courts over this class of liens was imparted by State legislation, or that those tribunals could in any way derive judicial competency or jurisdiction from State grant; and without being restrained by the significant intimation of the Supreme Court, I should not be anyway inclined to administer affirmatively, as the foundation of a right and remedy in Admiralty, any enactment by a State Legislature.

Considering that the decision last referred to withdraws from the cognizance of this court the subject matter of the present action, as not being one of Admiralty and maritime jurisdiction, I deem it wholly useless and extra judicial to inquire whether the statute of North Carolina, put in evidence in this cause, is applicable in its provisions to the contract and debt now in suit, or is of any force out of the territorial jurisdiction of that State. The labor claimed by the libelants to have been furnished this schooner in North Carolina must be understood to be the work of builders, personally or by their agents, and falls directly within the judgment of the court, as not a claim of a maritime character.

The latest decision of the Supreme Court upon a legal question within its jurisdiction, settles for the government of all inferior judicatories the practical meaning and force of the proposition so determined; and it is no part of the function of subordinate courts to adjudge, or even inquire, whether such determi-

nation comports with or subverts antecedent judgments of the same forum upon similar questions. The last decision is practically the final one.

Neither of the two cases last passed upon by the Supreme Court, in relation to implied liens in favor of material men and laborers, against American vessels in American ports, demanded the direct and broad answer to the inquiry whether those liens exist or can be enforced in the Federal courts in any form, by virtue of the general maritime law; but the principles announced by the court in those cases render it quite palpable that scarcely another advance remains to be made in order to abrogate that remedy absolutely, and reinstate and restrict the Admiralty powers of the judiciary in respect to those credits, in subordination to the rule of the common law as that was administered under the English jurisprudence at the time of the adoption of the United States Constitution.

It is my province to accept and pursue the law as declared by the Supreme Court; and in my opinion the rule established by that tribunal in those cases, determines that the claim put forth in this action, either for building or constructing, or outfitting, or providing materials, supplies, labor, rigging, or ship stores necessary to render this vessel seaworthy and fit for navigation at sea, is not within the jurisdiction of the court, and accordingly the libel must be dismissed with costs.

The amount in demand being sufficient to authorize an appeal of the case to the court of last resort, I put the decision specifically upon the question of jurisdiction, that being directly involved, and being a point of high practicable moment to the mercantile, manufacturing, and shipping interests of the country, and shall forbear discussing those other features in the case bearing strongly against the adequacy of the pleadings and proofs to sustain the action in this form, if the case of Pratt *vs.* Reed, and the Ferry Company of Boston *vs.* Beers, had interposed no legal impediment to the suit. Decree accordingly.

PLEADING—DENIAL OF KNOWLEDGE ON INFORMATION SUFFICIENT TO FORM A BELIEF —CONFLICT OF LAWS.

In the Superior Court, city of New York. Before the Hon. Justices Bosworth, Hoffman, Slosson, Woodruff, and Pierrepont. Duncan, Sherman & Co., *vs.* Smith, Lawrence & Co.

The action was on a promissory note made by defendants. The plaintiffs alleged that they were copartners, and the note was duly transferred to them, and that they were the owners, &c. The answer set up that the defendant had no knowledge or information sufficient to form a belief as to these facts. The plaintiffs moved for judgment on frivolousness of the answer, which was granted. The defendant appealed, and the General Term reversed the order, allowing the answer to be sufficient.

BOSWORTH, J., rendered an oral opinion, in which he held :—1. An answer to a complaint on a promissory note is not frivolous, because it merely denies those allegations of the complaint which are employed to show the plaintiff's title to the note. 2. An averment in the answer that the defendant has no knowledge or information sufficient to form a belief as to such allegations of the complaint is a sufficient denial of them.

This is directly contrary to the decision in Kamlah *vs.* Salter, (6 Abbott's Pr. R., 226,) rendered at the General Term of the Common Pleas, last month. In that case they hold the answer frivolous if it merely denies that the defendant ever indorsed or delivered, or in any way transferred the note to the plaintiff, and alleges that he has no knowledge or information sufficient to form a belief whether the note was ever delivered to the plaintiff, or in any way transferred to him by any one.

The weight of authority in the Supreme Court is in support of the decision of the Superior Court.

Ordered that the order appealed from be reversed, and $10, the costs of this appeal, and the costs of opposing the motion for judgment, abide the event of the action.

COMMERCIAL CHRONICLE AND REVIEW.

STATE OF BUSINESS — HARVEST PROSPECTS — WOOL SALES — PRICES AT WEST — COTTON CROP — SALES OF GOODS—SHORT CREDITS—IMPORTS—BALANCE OF TRADE—EXCHANGE RATES—SPECIE MOVEMENT AT THE PORT—TREASURY—LOANS OF GOVERNMENT—CALIFORNIA RECEIPTS—EXPORT OF SPECIE—DESTINATION OF MONEY SHIPPED—SPECIE IN BANKS, EUROPE AND UNITED STATES—RATES OF INTEREST—DIVIDENDS OF BANKS FOR JULY—CLEARING-HOUSE—ASSOCIATION IN PHILADELPHIA—REDEMPTION OF NOTES—CLEARING-HOUSE IN CINCINNATI—NEW BANK IN PENNSYLVANIA, IN ST. LOUIS—BANK LAW OF IOWA — GENERAL STATE OF BANKING—MONEY ABROAD—SILVER AT HAMBURG—IMPORTS AND EXPORTS AT THE PORT—DRY GOODS.

THERE has been very little change during the month in the general conditions of the money market. Money has continued to accumulate in the central reservoirs, and its market price falls, in face of the continued inertness of all descriptions of business. There is still no prospect of such an immediate appreciation in the value of any articles of merchandise or investment as will attract money, and the harvests yet present no food for enterprise. The wool crop has indeed been sold at prices which stiffened under the operations, showing that the demand is, at least, equal to the crop, which is represented small. At the usual quantity, however, there may have been scattered $20,000,000 through the country. Most farm crops are very abundant, but do not, partly in consequence of that abundance, attract money. Wheat keeps very low at the West—70 cents in Rochester, 45 at Dubuque, 40 at Des Moines, and similar rates in other localities, with equivalents for other grains, indicating but a small surplus profit for the farmers with which to make purchases. The foreign markets are also abundant in local supplies, and falling in value. Hence, the prospect of an export demand this season is limited. The cotton crop is full, with good prospects, notwithstanding the floods. It follows that raw produce affords little attraction to enterprise for the moment. The low prices and dull sales of the natural products, discourage the prospects of the goods markets, and induce a stricter adherence to the disire to shorten credits. Under these circumstances, it cannot be matter of surprise that money accumulates in the banks at the different centers of business. The wants of the Federal Government will be met for the present, and it is not improbable that the new loan may, to a considerable extent, be negotiated abroad, which might lead to a discontinuance of the export of specie hence, if not to an actual import from abroad, since the imports for the fiscal year, closed on the 30th June, show a balance in favor of the country. The details of the imports and exports of the port of New York, will, as usual, be found annexed to this article, as well for the month as for the six months and the previous six, embraced in the fiscal year. The imports at the port of New York are usually a large portion of the aggregate into the Union; while, on the other hand, the exports hence, exclusive of specie, are but a small proportion of the aggregate. If we estimate the business of the other ports to some extent, we have the following apparent value on the year's business :—

	1857.		1858.	
	Imports.	Exports.	Imports.	Exports.
At New York.....	$219,741,000	$75,929,000	$162,159,000	$55,932,000
Other ports.....	128,687,000	202,978,000	93,395,000	172,978,000
Total.....	$348,428,000	$278,907,000	$255,554,000	$228,910,000

Specie.....	12,462,000	62,137,000	16,000,000	51,000,000
Re-export.....	.....	14,905,000	.....	20,905,000
Grand total...	$360,890,000	$362,949,000	$271,514,000	$300,815,000
Excess exports....	.....	2,059,000	.....	29,261,000

Thus the last fiscal year closed with an apparent balance of over $2,000,000 in favor of the Union; and the fiscal year, just closed, has left a balance of over $29,000,000 in favor of the country. Exchanges are consequently dull. It is apparent that the sales of American produce abroad, with the exception of food, which declines under good crops, have not fallen off in proportion to the purchasing of goods by the United States. This fact would leave the inference that the panic was more effective in the Union than abroad. The rates of exchanges have been as follows:—

	June 22.	June 29.	July 13.
London.....	108¾ a 109¼	109 a 109¼	109⅛ a 109¼
Paris.....	5.16¼ a 5.12½	5.15 a 5.11½	5.12½ a 5.11½
Bale and Zurich.....	5.13¾ a 5.12½	5.13¾ a 5.11½	5.12½ a 5.11½
Antwerp.....	5.15 a 5.12½	5.13¾ a 5.12½	5.12½ a 5.11½
Amsterdam.....	41⅛ a 41⅜	41⅛ a 41⅜	41⅛ a 41⅜
Frankfort.....	41⅛ a 41⅜	41⅛ a 41⅜	41⅛ a 41⅜
Bremen.....	79 a 79½	79½ a 79½	79½ a 79½
Prus. thal'rs, on Berlin, Liepzig, Colo'ne	78 a 78½	78 a 78½	78½ a 78½
Hamburg.....	36⅝ a 36⅝	36⅝ a 36⅝	36⅝ a 36⅝

With these rates of bills, the movement of specie has been less than last year, and the comparative table of imports and exports, weekly, at New York, is as follows:—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,266
23.....	.....	781,295	.....	1,244,368	3,078,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,480	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,134	225,274	2,964,000	35,925,076
20.....	1,004,100	306,351	11,000	116,114	6,853,852	37,681,656
27.....	.....	38,734	1,403,949	83,120	6,141,594	37,071,066
April 3.....	1,487,128	742,238	.....	115,790	5,548,069	37,078,069
10.....	375,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	203,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,390	1,550,000	136,873	3,145,400	38,209,613
8.....	.....	671,101	.....	106,110	2,874,200	38,327,846
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,894,892	1,446,175	16,616	4,803,609	38,170,900
17.....	208,000	2,045,389	.....	68,318	7,773,108	38,011,251
26.....	.....	2,019,406	1,799,502	276,487	7,461,600	39,410,688
July 3.....	1,892,000	58,228	.....	317,110	5,820,000	39,650,000
10.....	.....	1,184,115	1,500,000	564,080	5,342,200	40,047,800
17.....	1,591,107	523,868	.....	637,240	5,157,690	40,485,000
	21,241,272	24,186,942	20,027,419	13,840,830	.....	.....

The exports at this time last year exceeded the receipts, and this year the latter are already $7,000,000 in excess of the exports since January, during which period a portion of the gold received from Europe during the panic returned, swelling the exports beyond what they otherwise would have been. The amount in the treasury has fluctuated with the loans of the government. The issue of treasury notes carried the amount to $7,773,108, January 17th, but the continued small imports did not allow of customs receipts equal to current expenditures, and the specie was speedily paid out. The receipts from California continue large, and the advices from Frazer's River continue to be of the most promising character. The description and distinction of the specie exports for the month have been as follows:—

SHIPMENTS OF SPECIE FROM THE PORT OF NEW YORK.

	American coin.	Bars.	American silver.	Sov'reigns.	D'ubloons.	French gold.	Spanish silver.	Total.
Total for June..	217,712	1,086,846	20,496	218,050	89,793	25,135	6,050	1,638,566
Havre.....	265,226	268,286	.....	.....	.....	.....	....	533,157
Havana	.....	.....	10,000	.....	1,565	.....	....	1,165
Arroga.....	.....	.....	.....	.....	5,000	.....	....	5,000
Port Lenha	.....	.....	.....	16,298	.....	.....	....	16,298
Mayaguez	.....	.....	5,000	.....	15,750	.....	....	20,750
Para.....	15,000	.....	.....	.....	.....	.....	....	15,000
Liverpool.....	.....	661,060	.....	10,194	.....	.....	....	651,254
Nuevitas	.....	.....	.....	.....	.....	3,000	....	3,000
Ponce.....	1,000	.....	.....	.....	.....	.....	....	1,000
Shanghae.....	.....	.....	.....	.....	.....	.....	1,966	1,966
Rio Grande....	504	.....	.....	.....	.....	.....	....	504
Belise.....	7,100	.....	.....	.....	.....	.....	....	7,100
Total, July...	289,475	908,346	15,000	26.492	22,315	3,000	1,966	1,256,194
May 8 to July 12	507,187	1,944,692	35,496	244,542	112,108	28,135	2,616	2,894,760

The actual amount of "money," that is, American coin, shipped, has been quite small, only $507,187 for the two months. The balance has been foreign coins and bar—which are the metals for money, but are not circulating coin. The business of the Assay-office for the month, was as follows:—

STATEMENT OF BUSINESS AT THE UNITED STATES ASSAY-OFFICE AT NEW YORK, FOR THE MONTH ENDING JUNE 30.

DEPOSITES.

	Gold.	Silver.	Total.
United States bullion.....	$1,663,000	$20,500	$1,683,500
Foreign coins	20,000	81.000	101,000
" bullion.....	17,000	3,500	20,500
Total.....	$1,700,000	$105,000	$1,805,000
Total deposits payable in bars.....	$435,000 00		
" " coins	1,370,000 00		
			$1,805,000 00
Gold bars stamped			1,228,145 95
Transmitted to United States Mint, Philadelphia, for coinage.....			789,945 27

The weekly bank returns, in our Banking Department, show the extent of the accumulation of specie in the leading cities of the United States; and if we compare the aggregate with those of the Banks of France and England, we have results as follows:—

SPECIE IN BANKS.

	October.	February 10.	March 11.	April 8.	May 13.	June 13.
London.	$35,850,110	$82,870,101	$88,532,091	$88,627,166	$86,940,942	$86,530,138
Paris...	35,585,613	53,035,138	63,323,865	71,780,888	82,993,386	85,716,528
N. York	7,843,230	30,226,275	32,961,076	32,036,486	34,730,728	33,367,253
N. Orl'ns	3,230,870	11,187,398	10,978,759	10,808,605	10,615,535	10,312,237
Boston.	2,563,112	7,079,600	7,589,968	8,505,312	9,210,111	9,410,569
Philad.	2,071,434	4,823,989	5,448,514	6,183,289	7,019,204	7,055,188
Total	86,743,890	189,292,491	208,834,273	218,003,696	231,509,906	232,391,913

The month of June brought a slight reaction to the continued accumulation, but it has been since renewed. While there is little chance of a speedy demand for money for general investment, money in New York has continued to decline in value, and has been offered as low as 3 a 4 per cent on call, and good paper has been done at 3 per cent. The small amount of business paper made, while in the face of a very dull spring trade, a great deal of extended and renewed paper has been worked down, has left the banks, as well as private capitalists, short of good investments. Nevertheless, the banks have been unable, many of them, to pay their usual semi-annual dividends. There was paid, July 1st, on a capital of $39,229,500, dividends to the amount of $1,500,682, an average of 3.81 per cent. The large banks paid 3½, and others 4 a 5 per cent at the West. Money is yet collected with difficulty on account, but money accumulates gradually in the reservoirs, and is becoming cheaper.

The operation of the clearing-house in New York is gradually producing its results in other sections. The Philadelphia banks, and others adjacent, have entered into an arrangement for receiving all the notes of the banks of Pennsylvania, east af the Alleghany Mountains, on deposit and in payment of debts, on and after the 18th of September next. This arrangement will be very advantageous to the trading community, who have been compelled to take the notes of interior banks that are at a discount, in payment for their merchandise. We trust that all the banks in the State will see the propriety of keeping the issues at par in that city, which, if done, would save the business community a large sum, which annually they are compelled to expend to have their currency exchanged for bankable funds.

In Cincinnati the branches of the State Bank of Ohio, have made decided progress towards the establishment of a clearing-house in that city. The Indiana banks, and a portion of the Kentucky banks will co-operate with the Ohio banks, so as to make it, in fact, a clearing-house for the leading institutions whose circulation centers at Cincinnati. The capital has been fixed at half a million, a portion of which is left to be subscribed in that city. So much of it as has been apportioned to the country banks, being much the largest of the whole, has been subscribed, and the following gentlemen were chosen to represent this interest as directors, viz. :—Noah L. Wilson, V. Winters, of Dayton, and A. Stone, Jr., of Cleveland.

These arrangements for the prompt settlement of balances, preparatory to the renewed activity of business, will have a very beneficial effect. In Pennsylvania there is already a disposition to apply for new bank charters. There are now applications for seven, with an aggregate capital of $1,000,000. But there is a strong movement for a general law, which would be far preferable to the charters. At St. Louis $600,000 has been subscribed to the Farmers' Bank, of

Lexington, and $445,000 paid in. The bank has paid 7½ per cent for the last six months. The people of Iowa have adopted, nearly unanimously, the project of banking laws laid before them for their approval. It is highly probable that a revival of general business will find banking affairs in a far better condition than formerly.

The advices from abroad are of continual cheapness in money, with little disposition to employ it while there is a progressive recovery. On the 17th an express train left Hamburg with 5,000,000 marks banco in silver bullion for Vienna—being the remaining half of ten millions borrowed by the Hamburg Senate, during the panic, of the Austrian Government.

The foreign imports at the port of New York for the fiscal year ending June 30, shows a very material decline as compared with the last year, which was one of great magnitude. The closing month of June, however, under the peculiar circumstances of the tariff last year, shows comparatively a large import for consumption, but greatly diminished for warehouse. The aggregates for the month show a smaller import than for any month of June for some years :—

FOREIGN IMPORTS AT NEW YORK IN JUNE.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$8,020,545	$12,518,271	$2,471,723	$6,652,563
Entered for warehousing.....	2,716,245	3,936,633	11,540,136	2,408,733
Free goods.....	1,188,043	1,249,579	957,866	953,014
Specie and bullion.....	68,779	257,174	369,901	102,132
Total entered at the port....	$11,993,612	$17,961,657	$15,339,126	$10,116,442
Withdrawn from warehouse..	1,804,620	1,656,871	781,099	2,360,140

The imports at New York from foreign ports, for the six months beginning January 1st, are hardly more than one-half the amount entered for the corresponding period of last year, and is less than for any similar period of the previous four years :—

FOREIGN IMPORTS AT NEW YORK FOR SIX MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$45,897,795	$80,300,885	$65,237,874	$36,820,520
Entered for warehousing.....	13,832,891	16,185,649	41,114,796	12,236,253
Free goods.....	7,762,627	11,090,793	9,224,745	11,449,498
Specie and bullion.....	454,116	724,582	5,252,012	1,778,363
Total entered at the port....	$67,947,429	$108,301,909	$120,929,427	$61,784,634
Withdrawn from warehouse..	12,241,070	10,917,867	13,145,261	21,911,964

The statement for the fiscal year 1857 was one of the most important on record. The total receipts of foreign goods at New York for twelve months ending June 30, were upwards of two hundred and twenty-six million dollars—being $27,969,449 greater than for the previous year. The returns of the present year show an important decline :—

FOREIGN IMPORTS AT NEW YORK FOR FISCAL YEAR, ENDING JUNE 30.

	1855.	1856.	1857.	1858.
Entered for consumption....	$107,029,210	$150,088,112	$141,480,109	$94,019,659
Entered for warehousing....	32,022,396	29,568,397	62,275,672	44,463,806
Free goods.....	14,300,259	17,432,112	16,036,530	23,665,487
Specie and bullion.....	1,153,661	1,126,097	6,441,855	9,324,384
Total entered at the port...	$154,505,526	$198,214,718	$226,184,167	$171,473,336
Withdrawn from warehouse.	28,501,421	21,934,180	27,950,212	49,876,593

It will be observed that nearly all the decline was in the last six months. Indeed, the aggregate imports for the first six months were the largest for any similar period ever known. The dry goods trade has borne its full share of the depression as follows :—

DESCRIPTION OF IMPORTS FOR THE YEAR ENDING JUNE 30.

	1855.	1856.	1857.	1858.
Dry goods	$62,918,448	$85,898,690	$92,699,088	$67,317,736
General merchandise	91,587,083	112,316,028	133,485,079	104,155,600
Total imports	$154,505,526	$198,214,718	$226,184,167	$171,473,336

Our readers will of course all be interested to know the value of the stock which had accumulated in bonded warehouses, at New York, on the 1st of July, and we have carefully compiled a statement which may be relied on as correct. The total is, as compared with last year, much reduced under the circumstances of the tariff, and also of the scarcity of money last year, as compared with its abundance and the small imports this year :—

		1857.		1858.
The total value in bond June 1st, was		$27,343,498		$13,400,061
Entered warehouse from foreign ports in June.		11,540,136		2,408,733
Received in bond from domestic ports		116		32,770
		$38,883,750		$15,841,564
Withdrawn for consumption here	$781,099		$2,329,889	
Reshipped to foreign ports	573,077		294,039	
Transported to other domestic ports	591,306		420,617	
		$1,945,482		3,044,545
Leaves stock in warehouse July 1, 1857		$36,938,268		$12,797,109
" " " 1856		12,612,631		
" " " 1855		13,543,121		

This shows that the stock, on the 1st of July, was nearly thirteen million dollars, being a reduction of $24,000,000.

We have given above the total imports at New York for various periods, but we also annex our comparative summary of the receipts of dry goods, all of which are included in the general total. The imports of dry goods at New York for the month of June, 1858, were $2,154,000 more than than for June, 1857, as will appear from the following comparison :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF JUNE.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$772,903	$1,570,382	$96,729	$997,331
Manufactures of cotton	298,042	515,095	115,341	319,076
Manufactures of silk	1,269,212	1,639,150	74,356	903,870
Manufactures of flax	173,050	282,979	26,212	138,650
Miscellaneous dry goods	182,317	302,477	36,985	144,842
Total	$2,695,524	$4,310,083	$349,623	$2,503,769

WITHDRAWN FROM WAREHOUSE.

Manufactures of wool	$124,910	$56,424	$61,669	$164,018
Manufactures of cotton	39,068	29,847	39,504	90,404
Manufactures of silk	96,336	96,184	29,972	136,210
Manufactures of flax	40,848	12,094	23,060	97,513
Miscellaneous dry goods	29,700	14,108	4,447	44,021
Total	$330,862	$208,657	$158,652	$532,166
Add entered for consumption	2,695,524	4,310,083	349,623	2,503,769
Total thrown on the market	$3,026,386	$4,518,740	$508,275	$3,035,935

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$245,468	$482,603	$1,345,199	$172,274
Manufactures of cotton	54,527	139,019	471,360	41,082
Manufactures of silk	154,972	154,863	1,046,969	31,711
Manufactures of flax	36,430	81,412	159,012	35,098
Miscellaneous dry goods	28,122	57,278	331,963	16,744
Total	$519,519	$865,175	$3,354,503	$296,909
Add entered for consumption	2,695,524	4,310,083	349,628	2,503,769
Total entered at the port	$3,215,043	$5,175,258	$3,704,126	$2,800,678

It will be seen that a very large portion of the receipts for June have been entered for consumption, nearly all having been thrown upon the market to meet current wants. The total receipts of foreign dry goods at the port of New York, for the six months just ended, are $23,216,493 less than for the first six months of 1857. We annex a comparative statement for the first six months of each of the last four years :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR SIX MONTHS, FROM JANUARY 1st.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$5,181,553	$11,111,464	$7,408,256	$4,975,813
Manufactures of cotton	3,660,275	8,290,974	8,948,436	3,820,264
Manufactures of silk	7,798,851	14,657,298	11,321,320	6,610,179
Manufactures of flax	2,224,598	4,318,058	3,070,348	1,539,516
Miscellaneous dry goods	2,118,642	3,541,705	3,232,375	1,365,178
Total	$20,983,919	$41,919,499	$33,980,735	$18,310,950

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,191,673	$801,861	$1,048,840	$2,197,129
Manufactures of cotton	1,651,176	1,453,496	1,762,481	2,815,359
Manufactures of silk	1,577,883	1,247,624	1,201,966	2,389,354
Manufactures of flax	782,268	706,026	735,999	1,455,823
Miscellaneous dry goods	535,587	227,675	343,984	853,326
Total withdrawn	$5,738,587	$4,436,682	$5,088,270	$9,710,991
Add entered for consumption	20,983,919	41,919,499	33,980,735	18,310,950
Total thrown upon the market	$26,722,506	$46,356,181	$39,069,005	$28,021,941

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,037,636	$1,326,025	$4,114,827	$1,121,271
Manufactures of cotton	993,786	1,084,091	2,094,850	1,378,428
Manufactures of silk	1,426,705	1,384,373	3,421,898	843,599
Manufactures of flax	622,606	444,584	1,294,094	540,508
Miscellaneous dry goods	491,237	371,945	881,308	375,263
Total	$4,571,970	$4,561,018	$11,805,977	$4,259,369
Add entered for consumption	20,983,919	41,919,499	33,980,735	18,310,950
Total entered at the port	$25,555,889	$46,480,417	$45,786,712	$22,570,319

The total for the fiscal year was $25,351,352 less than for the year ending June 30, 1857, and also less than for any previous year except 1855 :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE FISCAL YEAR ENDING JUNE 30.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$14,295,207	$22,671,010	$20,261,826	$17,035,032
Manufactures of cotton	8,240,045	13,225,234	15,813,299	9,012,911
Manufactures of silk	18,814,441	27,738,080	25,192,465	17,581,099
Manufactures of flax	4,880,462	7,760,145	6,857,433	3,701,555
Miscellaneous dry goods	4,698,710	6,575,816	6,709,004	3,761,788
Total	$50,928,845	$77,970,285	$74,833,527	$51,092,385

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$4,041,940	$2,025,697	$2,929,179	$6,369,118
Manufactures of cotton	2,649,973	1,983,578	2,492,516	4,018,693
Manufactures of silk	3,075,368	2,241,785	2,004,190	5,394,970
Manufactures of flax	1,143,979	1,131,408	1,100,183	2,215,427
Miscellaneous dry goods	752,958	507,675	601,035	1,385,173
Total	$11,664,218	$7,890,143	$9,127,103	$19,383,381
Add entered for consumption	50,928,845	77,970,285	74,833,527	51,092,385
Total thrown on market	$62,593,063	$85,860,428	$83,960,630	$70,475,766

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$3,768,980	$2,184,627	$6,081,505	$5,028,533
Manufactures of cotton	2,272,932	2,006,493	3,780,715	4,048,530
Manufactures of silk	3,544,225	2,225,515	4,447,447	3,667,521
Manufactures of flax	1,396,417	861,657	2,228,768	1,964,891
Miscellaneous dry goods	1,007,044	650,113	1,247,126	1,515,876
Total	$11,989,598	$7,928,405	$17,835,561	$16,225,351
Add entered for consumption	50,928,845	77,970,285	74,833,527	51,092,385
Total entered at port	$62,918,443	$85,898,690	$92,669,088	$67,317,736

The course of the receipts of dry goods for the last year has not been as uniform as usual—all the increase taking place previous to July. The following table will show the comparative increase or decrease in each month of the last, as compared with the previous fiscal year :—

RECEIPTS OF DRY GOODS FOR TWELVE MONTHS ENDING JUNE 30, 1858, COMPARED WITH THE PREVIOUS YEAR, AND 1857 AS COMPARED WITH 1856.

	1856–7.		1857–8.	
	Decrease.	Increase.	Increase.	Decrease.
July	.....	$4,647,925	$7,113,152	.....
August	.....	3,390,845	.....	$2,227,368
September	$424,334	.....	.....	708,698
October	1,753,050	.....	.....	746,533
November	.....	403,869	.....	1,999,013
December	.....	1,198,948	.....	3,571,499
January	800,295	.....	.....	7,520,332
February	.....	5,092,007	.....	6,948,409
March	1,545,519	.....	.....	3,600,170
April	1,204,926	.....	.....	4,287,470
May	1,263,940	.....	43,436	.....
June	1,471,132	.....	.....	903,448
	$7,963,196	$14,733,594	$7,156,588	$32,507,940
Deduct decrease	.....	7,963,196	Increase.	7,156,588
Total increase for the year	.....	$6,770,338	Decrease.	$25,351,352

In order to distinguish the dry goods from the general imports, we have compiled a little table which gives at a single glance the whole imports of dry goods for the year, as compared with the preceding three years :—

IMPORTS OF DRY GOODS AT NEW YORK FOR THE YEAR ENDING JUNE 30.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$18,064,187	$24,855,637	$26,342,831	$22,063,565
Manufactures of cotton.....	10,512,957	15,231,727	19,594,014	13,061,441
Manufactures of silk.....	22,358,666	29,963,595	29,689,912	21,248,620
Manufactures of flax.....	6,276,879	8,621,802	9,086,201	5,666,446
Miscellaneous dry goods....	5,705,754	7,225,929	7,956,130	5,277,664
Total imports.....	$62,918,443	$85,898,690	$92,669,088	$67,317,786

All eyes are now directed to the future, but it is yet too soon to predict the course of trade for the ensuing year. From present indications it is not probable that the receipts for the next six months will be at all equal to the late years.

The following will show the total receipts for cash duties, at the port of New York, for the different periods named in our import statement :—

CASH DUTIES RECEIVED AT NEW YORK.

	1855.	1856.	1857.	1858.
In June.....	$2,816,464 80	$3,527,425 26	$677,811 29	$1,625,663 00
Previous 5 months.	11,983,480 91	19,013,720 49	18,615,710 02	9,403,449 00
Total, 6 months	$14,299,945 71	$22,541,145 75	$19,293,521 31	$11,029,112 00
Total fiscal year	32,658,873 03	42,628,508 03	42,271,645 74	27,434,667 00

The exports from New York to foreign ports for the month of June are larger in produce than the shipments for the same period of last year, or any previous one, except 1856. The exports of specie has been very small.

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JUNE.

	1855.	1856.	1857.	1858.
Domestic produce.....	$3,956,706	$8,273,454	$5,395,312	$6,382,939
Foreign merchandise (free).....	547,682	148,206	732,128	158,769
Foreign merchandise (dutiable)..	736,306	450,482	512,349	350,990
Specie and bullion	3,862,393	1,806,573	7,939,354	594,174
Total exports..... ...	$9,103,087	$10,678,715	$14,579,143	$7,486,872
Total, exclusive of specie ..	5,240,694	8,872,142	6,639,789	6,892,689

The total exports from New York to foreign ports, exclusive of specie, since January 1st, are $7,018,336 less than for the first six months of 1857. The exports, including specie, are larger than for any similar period :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SIX MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce.....	$26,337,424	$37,776,893	$34,451,640	$28,580,392
Foreign merchandise (free).....	3,102,557	570,085	1,908,177	782,561
Foreign merchandise (dutiable)...	2,989,852	1,724,051	2,301,897	2,280,425
Specie and bullion.....	17,074,795	15,268,360	22,398,062	12,359,959
Total exports.....	$49,505,628	$55,339,389	$61,059,776	$44,003,337
Total, exclusive of specie...	32,430,833	40,071,029	38,661,714	31,643,378

The exports for the last fiscal year, 1857, were larger, both in specie and produce, than for any former year upon our record. A decline in both items is manifest this year; they, however, exceed those of 1855 :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE FISCAL YEAR ENDING JUNE 30.

	1855.	1856.	1857.	1858.
Domestic produce	$52,602,406	$75,026,244	$75,928,942	$55,931,987
Foreign merchandise (free)	4,084,387	1,268,914	2,396,903	3,104,160
Foreign merchandise (dutiable)	5,636,787	3,691,600	3,932,370	7,309,672
Specie and bullion	38,058,334	25,819,305	44,348,468	34,322,071
Total exports	100,381,914	105,806,063	126,606,683	100,667,890
Total, exclusive of specie	62,323,580	79,986,758	82,258,215	66,345,819

The imports last year at this port were about $100,000,000 in excess of the exports, a figure which was made up by a corresponding excess of exports from other ports of the Union. This year, the excess of imports over exports is but $70,805,446, yet the exports of produce from the South, including the great staple, have been well maintained, and the result is seen in the low rate of exchanges and feeble movement of specie.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

NEW YORK BANK DIVIDENDS FOR JULY.

Some few of the banks of this city passed their dividends in November and January last. All have resumed, showing ample surplus profits. The following dividends are payable in July, 1858 :—

Names of banks.	Capital.	Rate.	Amount of dividend.
Seventh Ward Bank	$500,000	5	$25,000
Broadway Bank	1,000,000	5	50,000
Atlantic Bank	500,000	5	25,000
Butchers' and Drovers' Bank	600,000	5	30,000
Mercantile Bank	1,000,000	5	50,000
Chemical Bank	300,000	6	18,000
Metropolitan Bank	4,000,000	4	160,000
Mechanics' Bank	2,000,000	4	80,000
Phœnix Bank	1,800,000	4	72,000
Park Bank	2,000,000	4	80,000
Market Bank	1,000,000	4	40,000
Importers' and Traders' Bank	1,500,000	4	60,000
Tradesmen's Bank	800,000	4	32,000
New York Exchange Bank	130,000	4	5,200
Nassau Bank	1,000,000	3½	35,000
Dry Dock Bank	200,000	4	8,000
Bank of Commerce	8,602,000	3½	301,070
Bank of America	3,000,000	3½	105,000
Bank of New York	3,000,000	3½	105,000
Continental Bank	2,000,000	3½	70,000
Bank of North America	1,000,000	3½	35,000
Hanover Bank	1,000,000	3½	35,000
Merchants' Exchange Bank	1,235,000	3½	43,225
Bank of Commonwealth	750,000	3½	26,250
Irving Bank	500,000	3½	17,500
People's Bank	412,500	3½	14,437
Atlantic Bank	400,000	3½	14,000
New York County Bank	200,000	3½	7,000
Total, July, 1858	$40,429,500	..	$1,543,682

BANKS OF KENTUCKY, JUNE 30, 1858.

	Discounts.	Exchange.	Specie.	Circulation.	Deposits.	Due other banks.
Northern Bank..	$1,254,706	$2,311,437	$699,632	$1,482,728	$874,138	$941,816
Farmers' Bank..	999,346	1,911,583	773,086	1,978,389	346,455	45,340
People's Bank..	96,405	11,750	75,643	132,587	26,350	.....
B'k of Kentucky.	2,267,493	3,300,805	1,039,821	2,648,444	999,357	1,141,041
B'k of Louisville.	560,056	1,557,622	396,579	978,281	360,779	130,960
Southern Bank..	497,313	1,176,736	924,387	2,239,633	337 085	507,880
Mechanics'.....	165,844	.....	62,376	.....	138,150	1,084
Franklin Savings	355,356	.....	25,962	.....	104,512	25,964
Total	6,196,519	10,269,938	3,997,486	9,459,912	3,186,825	2,592,585
TENNESSEE.						
Union Bank....	$1,345,671	$2,149,658	$371,340	$6,237,701	$601,243	$135,864

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,988	$28,561,946	$6,490,408	$78,635,225	$18,601,357	$65,033,867
9	98,792,757	29,176,838	6,625,464	79,841,362	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,598,348	13,074,762	69,523,836
30	102,180,089	31,278,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,873,931	86,000,468	15,439,083	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,583	70,425,909
20	103,706,784	31,416,076	6,542,618	86,773,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 6	105,021,863	32,739,731	6,854,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,432	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,281	90,644,098	16,429,056	74,201,709
April 3	110,588,354	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,486	7,245,809	93,566,100	16,775,237	76,790,863
17	111,341,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111 868,456	35,064,218	7,431,814	98,438,506	17,875,203	80,563,303
8	112,741,955	35,453,146	7,735,056	101,165,806	19,488,661	81,727,146
16	114,199,288	34,780,728	7,502,975	101,884,163	18,284,868	83,599,295
22	115,658,082	34,047,446	7,307,445	101,917,869	17,620,131	84,297,738
29	116,650.943	31,496,144	7,252,616	99,851,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,830	101,489,535	17,982,648	83,506,887
12	116,022,152	33,367,253	7,367,725	100,787,073	16,503,899	84,283,194
19	117,797,547	32,396,456	7,297,631	102,149,470	16,818,521	85,280,987
26	118,823,401	31,948,089	7,215,689	101,961,682	15,825,988	86,135,699
July 3	119,812,407	33,880,232	7,458,190	106,803,210	17,267,927	89,535,283
10	118,363,937	34,705,598	7,571,373	106,420,723	18,168,757	88,260,956
17	119,164,222	35,328,184	7,346,946	107,101,061	17,046,961	90,054,100

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks.
Sept. 28.....	$18,480,161	$241,906	$1,959,885	$1,925,122	$1,194,967
Jan. 11.....	17,701,725	565,553	1,552,822	2,025,956	1,338,435
Mar. 15.....	16,925,349	520,828	1,310,787	1,903,082	1,043,930
Apr. 5.....	17.037,949	591 861	1,409,695	1,946,998	1,080,817
19.....	17.169.822	564.033	1,488,226	1,965.316	996,961
May 3.....	17,203,225	566.869	1,393,553	2,068,335	1,089,333
17.....	17,054.877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,555,717	2,088,873	1,208,543
June 21.....	17,345,487	573,317	1,604,850	1,988,496	1,170,711
July 5.....	17,653,908	523,691	1,810,047	2,402,956	1,010,101

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,302,374	$3,770,701	$1,011,033	$11,465,263	....
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512.765	....
Jan. 25....	20,730,958	4,243,966	1,062,192	11,547,697	.....
Feb. 1....	20,423,704	4,465,693	1,096,462	12,195 126	.....
Feb. 8....	20,359,226	4,668,085	1,293,046	11,904,519	.....
Feb. 15....	20,071,474	4,888,983	1,559,218	11,889,342	.....
Feb. 22....	20,161,260	4,924,906	1,686,689	12,014.605	.....
Mar. 1....	20,251,066	4,903,936	1,808,734	11,830,532	.....
Mar. 9....	20,471,161	5,147,615	1,916,352	12,253,282	.....
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	.....
Mar. 23....	20,796,957	5,483,358	2,140,463	12,413,191	.....
Mar. 30....	21,020,198	5,661,782	2,296,444	13,201,599	.....
Apr. 6....	21,657,152	5,937,595	2,647,399	13,422,318	3,056,181
Apr. 12....	21,656,028	6 133,000	2,675,198	13,784,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,300	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,243,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,978
May 17....	22,592,841	7,019,204	2,351,709	15,548,237	3,055,076
May 24....	22,969,576	6,963,371	2,410,181	15,354,423	3,221,858
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,306	3,565 213
June 21....	23,803,903	6,873,971	2,365,435	15,857,904	3,504,300
June 28....	24,060,708	6,664,681	2,389,252	16,356,129	3,101,201
July 5....	24,311,928	6,835,877	2,431,181	16,566,846	2,986,297
July 12....	23,783,792	6,899,754	2,422,411	15,898,464	3,369,430

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,230,320	$6,196,459	$7,442,142	$2,297,348	.....
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,370	2,838,878	$816,132
19...	17,818,222	9,942,880	4,224,042	10,996,494	3,526,929	1,266,660
26...	17,741,355	10,320,714	4,336,624	11,579,048	3,951,212	1,363,473
Jan. 2...	18,149,456	10,505,188	4,535,951	11,948,905	4,114,622	1,590.072
9...	.....	10,626,260	4,778,539	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,608	5,095,771	1,552,855
23...	14,559,181	10,693,330	4,767,816	12,573,173	5,201,368	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,136	1,379,908
Feb. 6...	14,490,001	11,187,398	5,037,906	14,539,408	5,934,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,368,835	6,624,657	1,283,609
20...	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,034
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,832,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,347	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,434	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,636	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,453,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,634	15,658,182	9,321,352	1,410,349
17...	16,480,547	10,854,012	7,685,589	15,640,948	9,035,522	1,381,527
24...	16,094,721	10,798,455	7,828,399	15,589,151	9,221,277	1,473,994
May 1...	15,933,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,382
8...	15,459,485	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,638	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,584	10,257,171	7,965,484	.....	8,269,260	1,102,648
12...	12,828,721	10,312,237	7,943,819	15,464,347	8,533,964	1,009.370
19...	12,374,128	10,208,900	7,645,844	15,714,302	8,720,257	1,119,317
26...	12,390,984	10,423,080	7,323,034	15,676,134	8,110,788	1,034,117
July 3...	12,291,555	10,676,674	7,962,959	16,013,100	7,890,863	1,061,242

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Dec. 22....	$50,209,500	$4,579,000	$5,627,000	$15,606,000	$4,054,800	$5,888,000
29....	50,377,000	4,789,500	5,130,400	16,326,600	3,998,000	5,688,000
Jan. 5....	50,726,800	5,028,000	5,416,000	17,073,800	3,911,000	5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,368,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25....	51,772,412	6,078,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,395,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,137,972	7,079,606	5,898,660	18,429,945	5,568,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,829,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,137,000
15....	52,068,743	7,559,698	5,291,549	18,909,682	5,837,534	6,011,377
22....	51,999,451	7,235,531	5,163,492	19,029,251	.....	.....
29....	51,632,451	7,905,491	5,159,569	18,895,249	.....	.....
April 5....	51,918,900	8,259,500	5,477,500	20,136,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	.....	.....
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,583	7,363,702
May 4....	51,499,700	9,243,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,903,020	20,846,860	6,580,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,037	7,265,607	6,399,061
14....	53,951,032	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268
21....	54,162,119	9,457,831	5,703,699	20,764,739	7,804,896	5,809,542
28....	54,780,644	9,119,604	5,633,176	20,883,942	7,827,075	5,674,795
July 5....	55,808,453	9,104,461	6,313,049	21,570,803	8,089,162	6,357,413
12....	56,200,929	9,000,663	6,538,325	21,075,247	8,526,510	6,299,019

PITTSBURG BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due banks
April 12.....	$5,513,821	$1,194,232	$1,287,095	$1,305,294	$70,236
19.....	5,570,585	1,220,633	1,291,091	1,345,062	87,713
26.....	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May 3.....	5,784,492	1,192,216	1,360,551	1,504,549	40,312
10.....	5,763,651	1,171,627	1,365,551	1,585,182	74,491
17.....	5,737,072	1,191,663	1,373,401	1,491,620	111,260
24.....	5,769,868	1,175,334	1,371,586	1,464,767	124,044
31.....	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June 7.....	5,895,461	1,207,637	1,426,586	1,540,926	90,334
14.....	5,865,951	1,218,842	1,385,926	1,556,862	108,994
21.....	5,836,952	1,223,759	1,366,481	1,571,589	134,480
28.....	5,874,782	1,266,195	1,377,096	1,630,570	125,743
July 5.....	6,014,676	1,246,588	1,436,651	1,699,196	85,698
12.....	6,016,509	1,229,883	1,458,776	1,691,758	157,608

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
April 10.....	$1,255,694	$1,788,970	$1,673,628
17	1,161,065	1,793,945	1,720,728
24.....	1,250,295	1,832,915	1,770,882
May 8.....	1,369,316	1,240,431	1,959,823
15.....	1,494,025	1,864,960	2,161,503
22.....	1,547,938	1,825,810	2,225,285
29.....	1,548,531	1,921,475	2,396,027
June 5.....	1,557,119	2,087,890	2,452,141
12.....	1,471,190	2,101,405	2,536,707
19.....	1,459,735	2,161,985	2,465,372
26.....	1,417,840	2,005,505	2,434,398
July 3.....	1,523,179	2,246,835	2,320,758
10.....	1,445,704	2,260,560	2,315,635

FINANCES OF THE CITY OF ST. LOUIS.

The Controller of St. Louis, under date of May 10, 1858, gives a return of the debt of that city as follows:—

	Amount.	Interest.
Water works	$574,496 00	$32,499 60
Renewed indebtedness	748,500 00	44,910 00
Purchasing ground	230,000 00	13,800 00
Wharf and harbor	451,000 00	27,060 00
Public Sewer	479,000 00	22,200 00
Improvement of old limits	290,000 00	17,400 00
General purposes	296,800 00	19,840 00
Total for municipal purposes	$2,969,796 00	$175,707 60
Railroads	1,885,000 00	119,100 00
District sewers	211,000 00	12,660 00
Total, 1856	$5,156,796 00	$307,467 60
Amount issued in 1857	516,500 00	30,990 00
Total	$5,673,296 00	$338,457 60
Canceled by sinking fund	466,000 00	
Debt at close of 1857	$5,207,296 00	

The interest remains the same as above, ($338,457 60.) from the fact that the Fund Commissioner retains ten years' coupons from each bond he returns. No bonds of any kind have been issued since the commencement of the present fiscal year. From the report of the Register of Lands, it appears that his estimate of the value of real estate belonging to the city is $16,000,000; to which may be added stocks in railroads, $1,500,000, (in this amount the stock in the Ohio and Mississippi Railroad is not included;) the accumulated sinking fund, say $1,000,000; notes and obligations in the city treasury, say $186,000; delinquent tax list, say $310,000; total, $18,996,000.

This statement is presented simply to show that, come what may, St. Louis is, and ever intends to be, a paying city, and claims to peer with any city of her magnitude on this continent in energy, ability, and determination to meet her obligations. We can point with pride to the fact that the city of St. Louis has never been protested on her bonds or interest. Whenever it becomes a settled policy, and a principle rigidly to be adhered to, that we make no contract for labor or money unless we have the means of payment at hand to meet our engagements, then will our bonds become favorite stocks, and sell for something like their real value. The estimates of revenue for 1858 are as follows:—

Taxes on real and personal property		$600,000
Other taxes		259,885
Total		$859,885
Expenses—interest	$363,000	
other	675,000	
		1,038,000
Excess of expenditure		$178,115

In addition to this, Mayor FILLEY remarks:—

Our taxes are already the subject of great complaint, and should not be increased. Our predecessors for years past have gone too far and too fast in the improvement of our city—though not too far nor too fast provided the means of payment existed. In a city growing as rapidly as ours, it should cause no sur-

prise that, under the influence of the expansive state of things that have existed, we should now find ourselves at a point where contraction becomes inevitable. In this position we are not unlike most of our large commercial cities, and it will be wise in us now to appreciate our situation, and devise the ways and means necessary to restore our finances to a healthy condition. We may be justified in the issue of bonds to a certain extent for expenditures of a permanent character, but in no case for administrative or current expenses. The fact that the corporation owns real property to the amount of over $15,000,000, and that the sinking fund is an active agent in reducing our bonded indebtedness, together with the adoption of the principle now recommended, of limiting our current expenditures to our current receipts, should, and no doubt will, at once enhance the value of our bonds, and render them still more desirable as an investment.

FINANCES OF SACRAMENTO.

It appears that the rates of taxation (municipal and aggregate) in Sacramento, California, are much higher than in any other city in the United States. The rate on the hundred dollars of valuation in 1856–7 in Boston was $0 90; in New York, $1 38; in Philadelphia, $1 90; and in some of the Southern and Western cities it is frequently more than $2. However, it is well known that there is considerable difference in the method of assessing property in different cities. The *Union*, of Sacramento, states the rate on the $100 in that city for 1857 at $4 90, consisting of—State tax, $0 70; county tax, $1 45; and city tax, $2 75. The road tax upon property outside the city limits is five cents. This burthensome taxation has resulted from the calamities of fire and flood, which have at three different periods nearly destroyed the city, and from the public works which it has constructed for its protection and improvement. The levee, nine miles long, with a surface breadth of ten feet, and a base varying from fifty to seventy feet, has a grade of twenty-two-and-a-half feet above low-water mark, and cost $600,000. The water works cost $300,000; improvement of the streets, $185,000; fire department, etc., $100,000; aggregate of these items, $1,185,000. Gas works were established by a company in 1855, with expected cost of $250,000. Four-fifths of the gold which is exported from California passes through the city; and thus, with other advantages, its trade is extensive and permanent. We annex the assessment of property in the city during 1854, 1855, and 1856, with the totals for the entire county in 1856 :—

	1854.	1855.	1856.	1856.
Real estate.....	$3,587,524	$3,589,825	$3,510,698	$4,210,905
Improvements.....	1,125,515	1,380,090	1,880,156	2,766,560
Personal.....	2,468,988	2,647,870	2,194,914	3,608,356
Total.....	$7,182,027	$7,617,785	$7,585,768	$10,585,821

Under the recent act of the California Legislature, relative to the debt of Sacramento city and county, the amount of new bonds to be issued is $1,600,000 by the city, and $600,000 by the county. A revenue is created and set apart for the payment of these bonds. No provision is made for the old indebtedness of city or county, except such as is surrendered under this law. All the bonds are to be dated 1st January next, and are to mature—one-fourth 1st February, 1888; one-fourth 1st February, 1893; one-fourth 1st February, 1898; and one-fourth 1st February, 1903; interest annually at 6 per cent, payable on the first day of each year at the office of the Treasurer—claims to be registered, and to be entitled to the shortest time in the order of presentation.

FINANCES OF THE CITY OF ST. PAUL, MINNESOTA.

The immediate liabilities of the city of St. Paul are $53,357, and the bonds running in sums of $9,000 due annually from 1868 to 1873, $75,380, making $128,737. The debts due the city are $111,311, comprising $44,259 delinquent taxes, of which $31,435 were delinquent for 1857. These assets do not include the real estate, embracing the City Hall, but simply those items which are due or to become due in money, and will be collected from time to time; the sums owing for delinquent taxes, being assessed upon real estate, is, of course, abundantly secured, and is bearing the heavy interest of 25 per cent per annum. The amounts due from the first and second wards are amply guarantied by the ward tax provided for in the charter. The debt due by the St. Paul Bridge Company, which accrues by reason of the loan to that company of the bonds of the city in aid of the construction of the bridge, is carefully provided for in the act of the Legislature authorizing this loan, and secured by a mortgage on the bridge, and there is little fear but that the principal and interest upon these bonds will be promptly paid out of the large profits which that enterprise promises to furnish.

MILWAUKEE FINANCES.

The Mayor of Milwaukee has recently communicated a statement of the finances of that city for the year ending March 31, 1858, from which we learn that the amount of bonds issued for municipal purposes is $756,850; expenses of schools, $23,480; expenses of fire department, $24,397 27; expenses of police, $18,000. Bonds have been issued to aid in the construction of railroads to the amount of $1,614,000, as follows:—

Fond du Lac and Milwaukee.	$114,000	Milwaukee and Mississippi..	$534,000
G. Bay, Milwaukee, & Chicago	200,000	Milwaukee and Beloit.....	100,000
La Crosse and Milwaukee...	200,000	Milwaukee and Superior....	100,000
Milwaukee and Watertown..	200,000		
Milwaukee and Horicon.....	166,000	Total.....	$1,614,000

Of the above mentioned bonds the sum of $35,500 dollars of the principal, and $7,675 of interest thereon, is past due, and $38,870 of principal and interest to become due in the course of the fiscal year ending March 31st, 1859.

FINANCES OF DETROIT, MICHIGAN.

In Detroit the assessed valuation for purposes of taxation is now $16,360,000, with a city debt of less than $300,000. A loan for the water works has been proposed. The works cost $650,000. The city now contains 70,000 population, and notwithstanding the pressure of the hard times for the past year, during which time many have gone into the country for cheaper living, the population has steadily increased, to the extent of from eight hundred to one thousand families. The revenues of the water works have increased from some $11,000, in 1842, to $50,000; not from an increase of rates, but from the natural growth of the city, and the extension of the works and increased consumption. The annual report of the Controller of the city of Detroit gives the receipts and expenditures as follows, for the fiscal year ending March, 1857:—

Aggregate receipts from all sources during the year		$200,445 92
Balance in the treasury, March 1, 1857		89,797 00
Total		$240,242 92
The disbursements during same period were		212,742 39
Leaving a balance in the treasury of		$27,500 53
The total receipts during the year 1856 were		$264,797 04
" " " " 1857 were		200,445 92
Decrease		$64,351 12

The funded debt of the city of Detroit was as follows :—

	Interest.	Amount.
Bonds due May 1, 1858	7	$50,000 00
" September 1, 1859	7	60,000 00
" October 1, 1865	7	50,000 00
" at various dates in 1869	7	8,660 00
" " 1870	7	30,163 53
" " 1871	7 & 8	19,270 20
" " 1872	7	10,450 00
" " 1873	7	22,000 00
" " 1875	7	45,000 00
Bonds payable at the option of the Common Council	7	1,000 00
Total bonds		$296,543 73
Amount of unpaid claims at date		4,656 99
Amount of old claims outstanding		1,129 96
Total liabilities at date		$302,330 68
Deduct bonds and mortgages held by the Commissioners of the Sinking Fund	$4,830 00	
Also amount to the credit of Sinking Fund	15,643 45	
		20,473 45
Amount unprovided for at date		$281,857 23
Amount of debt unprovided for, March 1, 1857, was		289,252 52
Decrease as compared with 1857		$7,395 29

The interest fund account is given as follows :—

To interest paid on bonds, and reported by the city Treasurer		$22,162 28
To amount of interest due on bonds held by the Commissioners of the Sinking Fund, and transferred		3,227 43
To balance carried to new account		7,563 18
Total		$32,952 89
By balance reported March 1, 1857	$9,569 89	
By tax of 1857	23,383 00	
		32,952 89

The operations of the sinking fund was as follows :—

To bonds purchased as follows :—	
Washington Market bonds, Nos. 9, 21, 22, 25, 26, 27, 28, and 29, issued March 1, 1857	$800 00
First and fifth ward sewer bonds, Nos. 4, 18, and 27, issued in July, September, and December, 1848	290 20
First and fifth ward sewer bonds, Nos. 23, 31, 32, and 39, issued in June and October, 1847	400 00
Randolph-street sewer bonds, Nos. 21 and 23, issued Nov. 29, 1847.	50 00
Riopelle-street sewer bonds, Nos. 11, 14, 15, 16, 19, 54, and 60, issued in September, October, and November, 1847	700 00
Interest paid on Controller's account at the Peninsular Bank	18 37
To balance carried to new account	15,643 45
Total	$17,902 02

FINANCES OF THE CITY OF PITTSBURG, PENNSYLVANIA.

The City Controller of Pittsburg has submitted to the Councils of that city a statement of the real estate and personal property of the city, together with the funded and floating debt, &c., of the corporation. The following are the total amounts:—

Real estate	$1,083,486 00	Floating debt	$33,310 29
Personal property	102,852 77	Amount of bonds issued to railroad companies	1,800,000 00
Funded debt	1,135,879 92		

In lieu of which last the city holds shares of stocks in railroads as follows:—

Pittsburg, Fort Wayne, and Chicago Railroad, shares	4,800	Alleghany Valley, shares	8,000
Pittsburg and Steubenville	11,000	Pittsburg and Connellsville	10,000
		Chartiers Valley	8,000

MUTILATED NOTES.

The following report upon the subject of mutilated notes was recently adopted by the New York Clearing-house:—

NEW YORK, July 8, 1858.

At a meeting of the New York Clearing-house Association, held this day, the Committee on Mutilated Bills made the following report, which was ordered to be printed, and sent to the members of the association.

GEORGE D. LYMAN, Secretary pro tem.

The Committee on Mutilated Notes, to whom was referred the subject of applying to the Legislature for further protection in relation to the fraudulent mutilation of bank notes, beg leave to report:—

That, after a careful examination of the subject, they deem it inexpedient to ask for any legislative aid, believing that the existing laws are quite sufficient when the offenders can be detected.

The Committee would recommend to the members of the Clearing-house Association to refuse payment of all notes mutilated with *evident intent* to defraud, and in case any suit should be brought against any member for such refusal, that the defence be conducted under the direction of a committee, and that the expense of such suit be paid by the members of the association in the same manner as other expenses of the Clearing-house.

B. F. WHEELWRIGHT,
JOHN THOMSON,
J. C. BEACH,
} Committe.

FINANCIAL ACCOUNTS OF THE STATES OF THE UNION.

OHIO VALUATION AND TAXATION, 1855–57.

Governor S. P. CHASE, in his annual message, gives some interesting statistics in relation to the finances of that State, which we here extract. The tables exhibit the taxable property of the State as valued for taxation; the respective amounts of State, county, and local taxes; and the total amount of taxes levied in each of the last three years. It will be seen that the taxable valuation of the State was greater in 1857 than in 1856, but less than in 1855, according to Governor Chase.

The difference was occasioned in part by the exemption from taxation of the excess of credits over debts, by the act of April 1st, 1856, and in part by the rule prescribed in the same law for ascertaining the taxable property of banks and bankers. This rule requires two statements, one of the amount of notes and bills discounted, and all other property and dues of every description belonging to the bank; and another of the property employed in banking; and provides

that a ratio shall be charged upon the property of individuals, if levied on the property embraced in the second. This rule has been found very inconvenient in application, and has afforded opportunity for withdrawing considerable property from its just proportion of the public burdens. It is clear that property employed in banking should be assessed equally with other property. The decision of the Supreme Court of the State supplies a satisfactory rule for ascertaining what this property is. The Governor, therefore, repeats his previous recommendation, " that the law be so amended as to require all property employed in banking to be embraced in one schedule, and entered on the duplicate for taxation, at the same rate as is impressed on other property."

I. TAXABLE PROPERTY VALUATION.

	1855.	1856.	1857.
Number of acres	25,220,083	25,191,689	25,329,620
Value of lands	$432,261,735	$433,245,177	$435,602,655
Town and city lots	145,596,754	147,389,810	149,924,628
Value of chattels	283,018,815	240,024,550	263,631,303
Total valuation	$860,877,354	$820,661,035	$849,329,081

II. STATE TAXES.

For Sinking fund	$860,877 35	$574,456 33	$752,543 62
General revenue fund	516,526 41	820,669 37	535,407 54
State common school fund	1,291,316 02	1,231,007 18	1,254,312 39
District school library fund	86,087 72	.....	.....
Total State taxes	$2,754,807 50	$2,626,132 83	$2,592,263 55

III. COUNTY TAXES.

For County expenses	$1,138,568 28	$903,303 36	$987,752 63
Bridge purposes	332,073 65	229,065 07	267,297 54
Poor purposes	238,332 84	212,213 33	221,589 15
Building purposes	272,538 05	276,552 99	292,541 50
Road purposes	364,715 12	243,070 49	185,778 88
Railroad purposes	366,072 06	367,586 76	431,639 12
Total county taxes	$2,762,305 02	$2,232,294 00	$2,386,508 82

IV. OTHER LOCAL TAXES.

For Township expenses	$302,841 50	$278,009 63	$297,207 42
Schools and school-houses	1,246,346 00	1,285,933 95	1,403,197 96
Special taxes	200,336 91	184,917 26	281,625 89
City and town expenses	1,194,093 57	1,090,076 84	1,315,314 78
Total Township & City Special Taxes	$2,943,618 00	$2,838,942 68	$3,247,406 05
Delinquencies and forfeitures	493,781 35	312,144 41	392,944 51
Total local taxes, inc. county taxes	$6,199,704 88	$5,383,381 09	$6,028,659 38

RECAPITULATION.

Total county taxes	$2,762,305 02	$2,232,294 00	$2,386,508 82
" township, city, & special taxes	2,943,608 06	2,838,942 68	3,247,406 05
Delinquencies and forfeitures	493,781 35	312,144 41	392,944 51
Total local taxes	$6,199,784 38	$5,383,381 09	$6,026,859 38
" State taxes	2,754,807 51	2,626,132 83	2,592,263 55
Excess of local	$3,444,896 86	$2,757,248 26	$3,434,595 83
Total taxes on duplicate	8,954,511 88	8,009,513 92	8,619,122 93

The foregoing schedules show that while the amount of State taxes has been steadily reduced during the last two years, the amount of county and municipal taxes, largely reduced in 1856 from 1855, have increased, though not so largely in 1857 from 1856.

The Governor, therefore, remarks :—"It is worthy of consideration whether some further limitation upon the taxing power of county and municipal authorities may not be usefully imposed. I respectfully recommend, also, that provision be made by law for the collection of taxes semi-annually, instead of annually, as at present. In that case there need be no accumulations in the State or county treasuries, but the money of the people will remain in their own hands till actually wanted for public purposes."

NEW JERSEY.

The official returns of the revenues of the State of New Jersey for the year 1857, show the amount to have been, including the balance on hand, January 1, 1857, and $40,000 extra dividends of joint-stock companies, $240,270 ; disbursements, $237,212 ; balance in the treasury, January 1, 1858, $3,058. Of the expenses, $130,296 are classed as ordinary. The balance of unpaid appropriations is $38,000, and, including that sum, the whole indebtedness of the State is $191,277, although the constitution of the State forbids the contraction of a debt of more than $100,000. The State's available assets are, including 2,000 shares railroad stock, $246,300. In the operation for 1858, it is estimated that the expenses will exceed the revenue $28,000. The amount of school fund drawing interest is $416,648.

NORTH CAROLINA.

The gross amount of taxes for 1856 was $380,437 49, and for 1857 it was $490,168 34. To this is to be added the tax on bank stock, which, in 1856, was $14,182 33, and in 1857, $33,988 75. The total gross taxes was, therefore, for 1856, $394,619 82, and for 1857, $524,157 09, showing a difference in favor of 1857 of $129,537 27. The net public tax for 1856 was $341,833 84, exclusive of the bank tax ; and the net public tax for 1857, exclusive of the bank tax, is $457,442 46. The difference between the gross and net amounts given is accounted for by the commissions allowed the sheriffs. The total net income, therefore, from public taxes for the year 1857, is $491,411 21, or $135,365 01 more than in 1856. We have not included, however, in the net tax for 1857 several items which go to the literary fund—$8,570, for example, on retailers of spirituous liquors, and smaller sums, making in all $8,933 08. Add these to the above amount of $491,411 21, and the total amount of net public tax for 1857 will be $500,344 29.

MARYLAND.

The report of the State Controller of Maryland shows receipts for the year ending September 30, 1857, (including a balance of nearly $600,000 previously on hand.) $1,977,461, and disbursements $1,259,164. Of the balance left in the treasury, $476,477 is subject charges, leaving a balance applicable to further demands of $242,090. The estimated receipts of the current year are $1,132,150, and the estimated expenses, $938,144. The total funded debt of the State is $14,920,000, and the assessed value of real and personal property in the State is $251,664,790.

STATISTICS OF TRADE AND COMMERCE.

CHINA AND EUROPE—CANAL OF SUEZ.

The progress of affairs in the East is of daily increasing interest, inasmuch as that the vast empire of China is being brought more into contact with the Western World through California, and its internal resources opening up to the command of commerce. Europe seeks closer alliance through the Isthmus of Suez. Until now, the greatest obstacle to an extension of commercial relations has been the spirit of exclusiveness of the Chinese. But the testimony of those who have traveled in China within the last few years, is of an encouraging nature on this point, for they all state that the whole nation will be delighted to trade with foreigners as soon as they can be made to understand that such intercourse will be for their advantage.

The importance of the Chinese trade can best be estimated from the following statement, showing the value of importation and exportation in the various articles made by the maritime nations in one year, from July 1st, 1856, to July 1st, 1857 :—

	Importa.	Exporta.	Total.
English trade, legal .....francs.	71,846,540	273,995,888	536,812,703
" opium	191,470,775	.....	
Trade of the United States	17,836,635	82,198,615	100,035,250
All other nations.....	5,945,544	27,399,539	33,345,083
Grand total.....	286,599,494	383,593,542	670,193,036

The general trade may be calculated from the following schedule :—

IMPORTS FROM ENGLAND.

Cotton goods.....francs.	33,270,975
Thread	5,025,700
Woolens	6,716,000
Colonial produce.....	10,491,325
Total.....	55,403,000

IMPORTS FROM ALL OTHER NATIONS.

Cotton and wool.....francs.	8,000,000
Woven cotton goods.....	41,000,000
Thread.....	1,000,000
Woolen goods	7,250,000
Colonial produce from Europe and America.....	14,878,719
Ammunition of war	2,000,000
Metals.....	6,000,000
Opium.....	191,470,775
Produce of the sea	2,000,000
Rice and grains	13,000,000
Total.....	286,599,494

	Exports to England.	All other nations.
Tea, black and green.....francs.	128,077,000	211,804,731
Silk and silk goods.....	103,505,850	135,576,712
Alum, Chinese varnish, wax, cinnamon, cotton, wool, medicines, copper coins, china, paints, &c.....	3,958,505	36,212,100
Total.....	235,531,200	383,593,543

These exports and imports have been effected by means of 4,013 vessels, of 1,247,656 tons; and of these vessels the following trade to each of the Chinese ports mentioned:—

	Vessels.	Tonnage.		Vessels.	Tonnage.
Macao	808	47,227	Amoy	317	89,738
Hong Kong	1,813	612,875	Foe-tschoe	164	56,812
Canton	520	210,878	Ning-po	285	39,578
Soeatoe	65	20,468	Shanghae	541	172,585
Total				4,013	1,247,656

The whole of the commerce of China is carried on by English capital, with the single exception, perhaps, of the United States; for, although Bremen, Hamburg, and Holland send every year a number of vessels there, these are more than two-thirds freighted with coal by English houses.

The large size of the American vessels is an obstacle to the greatest extension of their trade—they average 710 tons. This is by far too large for many of the Chinese ports, where, consequently, the English vessels carry the day, as they are, in general, only about 310 tons. Even the Portuguese vessels and lorchas from Macao, can do them but little damage.

The following statement shows the number of vessels belonging to the different maritime nations:—

	Vessels.	Tonnage.		Vessels.	Tonnage.
France	37	18,665	Hanover	1	154
Austria	3	710	Norwegian	1	857
Belgium	1	600	Holland	178	71,883
Bremen	26	6,158	Peru	80	29,336
England	1,391	431,308	Portugal { vessels	43	11,115
Chili	15	3,802	Portugal { lorchas	500	45,860
Denmark	101	22,625	Prussia	3	772
Spain	142	37,517	Sardinia	4	1,564
United States	457	322,946	Siam	25	10,611
New Granada	5	2,160	Sweden	18	3,624
Hamburg	133	35,757	Steam vessels	849	185,578
Total				4,013	1,247,656

The coasting trade in China, as carried on by European vessels, has acquired a remarkable importance. The following statement will show its extent:—

1. The colony of Hong Kong has 46 sailing vessels, measuring 4,306 tons.

2. In Ning-po the resident English subjects own 16 vessels, measuring 957 tons.

3. The foreign houses in the Chinese ports own 26 vessels, out of which, 22 carry on a legal trade or the opium traffic, according to circumstances. One of these, the Spark, cost her owners in Canton £10,000 sterling, which she twice repaid in the course of a single year.

4. Macao owns 186 vessels, measuring 13,430 tons, and carrying 1,032 guns.

These vessels, amounting to 274, are, with the exception of the steamers, all built in China, which they never leave. All the coasting trade is carried on by them, to the entire ruin of the native coasters, which cannot shelter the goods they carry under a foreign flag, and thereby protect them against official maranders.

The advantage of foreign over native vessels in China, is still more evident, if we consider carefully the elements of the import and export trade, since the treaty of Nankin, 1855, drove it to the five stipulated ports.

1. There arrived in Canton, from Chinese ports, excepting Hong Kong and Macao, 49 vessels, measuring 17,607 tons. There sailed from Canton for Chinese ports, excepting Hong Kong and Macao, 57 vessels, measuring 18,689 tons.

2. Cleared at Amoy for the same places, 106 vessels, of 31,685 tons; entrances 103 vessels, of 28,137 tons.

3. In Foe-tschoe there entered 62 vessels, with 14,206 tons; cleared 54 vessels, with 8,168 tons.

4. In Ning-po, independent of the Portuguese lorchas, there entered 166 vessels, measuring 12,262 tons; clearances, 141 vessels, of 10,889 tons.

5. In Shanghae there were 136 entrances, of 31,164 tons, and clearances 145, of 30,123 tons.

It would be entirely incorrect if we were to consider this the entire coast trade of China, inasmuch as it is only the British part of it.

How can we explain the high number of 4,013 vessels, measuring 1,247,656 tons, of the external Chinese commerce, unless we take for granted (what the English by no means do) that the treaty of Nankin, in regard to the five ports, is not strictly kept, and that many a vessel goes to Soeatoe, Cum-sin-moon, Tehinschoe, Taivan, Wen-schoe, and Lockong, without counting the beautiful Pearl River, where English and Portuguese coasters find always well-paying cargoes?

We have included Hong Kong and Macao in our statements, notwithstanding that the one belongs to England and the other Portugal, for both, Hong Kong especially, have become general markets for foreign articles; besides, both serve as natural starting points for the coasting trade—the one for the north, the other for southwest.

It is, therefore, only reasonable to take from the whole commerce, as carried on by the 4,013 vessels, about one-half for the coasting trade, one-fourth for China and Europe, and the other fourth for China and America and Australia.

The long protracted struggle in China between the two dynasties, only tends to increase the commercial influence of foreigners. The state of martial law which reigned in Canton during the last eighteen months, has made Hong Kong the center of the commerce with the coast population of Konang-Tong, Konang-Si, Youn-Nan, and Hou-Nan. The foreign vessels, everywhere present, and affording the Chinese merchant both security and quickness of dispatch, could not but take possession of the whole commerce of the country, and lay the foundations for an immense amount of coasting trade for foreign vessels.

WHEAT TRADE.

The following table shows the imports and exports of wheat into France and England for many years, with the exports from the United States in a corresponding period. The general result is an increasing trade between the United States and Europe in breadstuffs:—

IMPORT AND EXPORT OF WHEAT INTO AND FROM FRANCE AND THE UNITED STATES, AND IMPORT OF WHEAT AND WHEAT FLOUR INTO GREAT BRITAIN.

	Great Britain. Imports.		France.		United States. Exports.	
	Flour.	Wheat.	Imports. Wheat.	Exports. Wheat.	Wheat.	Flour.
Years.	Cwt.	Bush.	Bush.	Bush.	Bush.	Bbls.
1841	1,263,126	19,278,032	3,754,982	5,077,233	.....	.....
1842	1,130,754	21,777,440	4,514,543	6,462,949	.....	.....
1843	436,878	7,520,990	9,093,692	3,888,212	311,685	841,474
1844	980,645	8,792,616	5,172,060	5,768,207	558,917	1,436,575
1845	945,864	6,978,680	6,900,238	3,654,585	389,716	1,195,230
1846	3,198,876	11,460,728	16,624,422	3,467,833	1,613,795	2,289,476
1847	6,329,058	21,251,232	28,754,658	4,154,427	4,399,951	4,882,496
1848	1,765,475	20,752,104	8,494,199	3,576,546	2,084,704	2,119,083
1849	3,349,330	32,763,024	1,364,217	5,002,152	1,527,584	2,108,013
1850	3,855,059	30,036,744	2,772,081	6,919,398	608,661	1,385,448
1851	5,314,414	30,496,072	2,003,943	6,327,735	1,026,725	2,202,335
1852	3,889,583	25,551,136	4,126,640	4,014,107	2,694,540	2,799,339
1853	4,646,400	35,595,512	10,103,107	2,101,206	3,890,141	2,920,918
1854	3,646,505	26,448,816	18,972,988	1,053,132	8,036,665	4,022,386
1855	1,904,224	21,342,608	12,165,022	822,256	798,844	1,204,540
1856	3,970,100	32,582,664	28,769,782	572,168	8,154,877	3,510,626
1857	2,178,148	27,503,656	15,865,574	1,844,063	14,570,331	3,712,053

PENNSYLVANIA LUMBER TRADE.

The lumber trade of this region has been very unsuccessful during the past year, in consequence of low prices. The amount of lumber sent to market is much below the average, as the following figures, taken from the books of the collector's office, showing the number of feet for which clearances have already been issued this year at Williamsport and Lock Haven, will demonstrate :—

Amount cleared at Williamsport.....feet	18,935,500
Amount cleared at Lock Haven.....	8,559,000
	27,534,500
To which add amount shipped by railroad.....	1,900,300
Making a total of.....	29,434,800

To avoid calamitous results to themselves hereafter, the lumber manufacturers of this region have, with commendable prudence, made arrangements to materially contract their operations the present year. The following reliable figures, giving the amount of stock in the West Branch booms in the years 1856, 1857, and 1858, will show pretty clearly the extent of the contraction :—

Years.	Susquehanna Boom.	Lock Haven Boom.	Loyal Sock Boom.	Total for the year.
1856.....	41,000,000	27,000,000	5,000,000	73,000,000
1857.....	32,000,000	21,000,000	8,000,000	61,000,000
1858.....	27,000,000	9,000,000	.....	36,000,000

The decrease of stock from last year, it will be seen, amounts to twenty-five million feet—or nearly one-half—and something more than half from that of 1856. The shipments during the next year will probably fall considerably below one-half what they were for the last.

OYSTER TRADE.

Mr. Paxton, of Rockbridge, a member of the Virginia House of Delegates, values the Chesapeake oyster trade at twenty millions annually, viz. :—

	No. bushels.	Value.
Virginia cities.....	1,050,000	$1,050,000
Baltimore.....	3,500,000	3,500,000
Philadelphia.....	2,500,000	2,500,000
New York city.....	6,950,000	6,950,000
Fair Haven.....	2,000,000	2,000,000
	16,000,000	$16,000,000
Add for other cities & towns, Providence, Boston, &c.	4,000,000	4,000,000
Total.....	20,000,000	$20,000,000

IMPORTS OF TURKEY IN 1857.

From England, cotton goods, hardware, sugar, and coals.....francs.	160,000,000
Germany, woolens, furniture, metals.....	38,000,000
France, clothing, candles, jewelry, furniture, silks, linens.....	30,000,000
Switzerland, cloths, watches, glassware, sugar, nails, weapons..	12,000,000
Holland, sugar, snuff.....	8,000,000
Italy, satin, candles, clothing, white-lead.....	2,000,000

STADE DUES.

The receipts of the Elbe dues in 1857 were $469,224 gross, and $410,178 net.

BRITISH COMMERCE.

The annual customs report, just published by the British Commissioners of Customs, contains some interesting and instructive statistics. The following figures represent the real value of the imports and exports during the last four years :—

	Imports.	Exports.	Excess of Imports.
1854	£252,389,053	£115,821,092	£36,567,961
1855	143,542,850	116,691,300	26,851,550
1856	172,544,154	139,220,353	33,323,801
1857	187,646,336	145,419,872	42,226,463

Allowing a reasonable sum for profits on trade, and remittances on account of foreign loans, etc., the above figures would show that a serious balance still remains against England. The excess of imports for the past year was doubtless due to the rise in the value of the raw material, as well as to the continuous imports of breadstuffs, which could not have been less than £14,000,000. This cause of difficulty is likely to be removed this year.

WOOL—IMPORT, VALUE, AND DUTIES.

The quantities and values imported annually for the last eleven years were as follows :—

	Imports.	Value.	Price.	Duties.
1847.....lbs.	8,460,005	$556,622	7	$166,986
1848.....	11,381,429	857,034	7½	257,110
1849.....	17,869,022	1,117,347	6¼	335,204
1850.....	18,669,794	1,681,691	9	484,507
1851.....	32,548,495	3,833,157	11¾	1,149,947
1852.....	18,341,298	1,930,711	10½	578,213
1853.....	21,595,079	2,669,717	12½	800,915
1854.....	20,200,110	2,822,185	14	846,655
1855.....	18,354,415	2,072,139	11½	621,641
1856.....	14,737,393	1,665,064	12	399,519
1857.....	16,502,060	2,125,744	13	637,723

BANGOR LUMBER MARKET.

Statement of the amount of lumber surveyed from January 1st to June 1st, 1858, compared with the amount surveyed during the corresponding periods of 1856 and 1857 :—

	1856.	1857.	1858.
Green pine.....feet	9,550,801	7,216,212	7,534,530
Dry pine.....	5,473,473	5,385,327	3,794,633
Spruce.....	13,614,672	11,478,519	15,419,407
Hemlock.....	2,666,257	3,044,675	4,375,928
Total.....	31,305,204	27,124,733	31,124,498

EXPORTS FROM MARSEILLES TO NEW YORK.

Years.	Lead, pigs.	Madder, casks.	Olive oil, baskets and cases.	Soap, boxes.	Cream tartar, casks.	Flor sulphur.	Verdigris.	Almonds, bales.	Walnuts.
1854	50,705	2,853	29,150	25,322	471	502	41	2,181	592
1855	56,283	5,858	42,118	43,448	1,210	193	95	5,299	1,606
1856	46,087	3,527	60,357	37,692	447	...	40	1,046	676
1857	85,092	2,374	37,496	11,655	590	709	47	1,098	305
1858	11,897	494	15,988	19,564	330	300	1	1,400	270

COMMERCIAL REGULATIONS.

BALE ROPE.

TREASURY DEPARTMENT, April 21, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 8th ultimo, on the appeal of Messrs. Newman & Co. from your decision assessing duty at the rate of 19 per cent on an article described as "bale rope," under the classification in schedule D of the tariff of 1857, of "cables and cordage, tarred or untarred;" the importers claiming to enter it at the rate of 15 per cent, under the classification of "manufactures of hemp, not otherwise provided for," in schedule E of the tariff of 1857. It is presumed from the statements before the Department in this case, that the article in question is composed of hemp, loosely manufactured, and of an inferior material, and that it is unfitted for the rigging of vessels, but is used, as its name indicates, for securing bales of merchandise. The only provisions of the tariff which seem applicable to the article in question, are the classification in schedule D of "cables or cordage, tarred or untarred," and that in schedule E of "manufactures of hemp, not otherwise provided for." The term "cordage," as defined by lexicographers, is confined to cords of whatever size used in the rigging of vessels. The term is used in the same sense, it is believed, in commercial and common parlance. The qualification of the expressions "cables and cordage" in schedule D as "tarred or untarred," confirms this view of the scope and meaning of that term. The article in question cannot, therefore, be held as falling within the classification of "cables and cordage, tarred or untarred" in schedule D, but is to be treated as a "manufacture of hemp, not otherwise provided for," in schedule E, and liable to duty at the rate of 15 per cent. Such was the decision of this Department under the tariff of 1846, and the tariff of 1857 makes no change in the classification of the article. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

JAPAN WAX.

TREASURY DEPARTMENT, April 21, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 9th inst. on the appeal of Messrs. Robinson, Wiggins, and Co. from your assessment of duties on an article imported by them into your port, and invoiced as "Japan wax." It appears that you decided the article in question to be non-enumerated in the tariff of 1857, and because of its similitude in qualities and use to beeswax, specified in schedule E of that tariff, you assessed the rate of duty levied on that article, by force of the 20th section of the tariff act of 1842. The importers contend that, by virtue of the same legal provision, the article in question should be subjected to the duty of 8 per cent, by assimilation in quality and use to the articles embraced in the classification in schedule G, of "tallow, marrow, and all other grease and soap stocks and soap stuffs, not otherwise provided for." The article known as "Japan or Chinese wax" is of vegetable origin, and is shown by chemical analysis to be wanting in one of the distinctive elements of "tallow," (oleine,) and is not known commercially under that name, or believed to be generally used, if at all, for any of the purposes specified in the classification in schedule G, to which it is referred by the importers. But such analysis shows that it more nearly resembles "beeswax," and may be used for many of the purposes to which that article is applied. In the opinion of the Department, therefore, it was properly charged by you with the duty of 15 per cent, as unenumerated, and assimilated by force of the 20th section of the act of 1842 in quality and use to "beeswax," specified in schedule E of the tariff of 1857. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Mass.

MANUFACTURES OF CORAL.

TREASURY DEPARTMENT, April 23, 1858.

SIR:—The Department has had under consideration the appeal of William Ruhl, Esq., of New York, from the decision of the collector at Boston, assessing duty at the rate of 24 per cent on certain manufactures of coral under the classification in schedule C of the tariff of 1857, of "coral, cut or manufactured," the importer claiming to enter them as "cameos" at a duty of four per cent, unthe classification in schedule H of that tariff, of "cameos and mosaics, diamonds, gems, pearls, rubies, and other precious stones, not set." The articles in question are returned by the appraiser as "heads, with more or less ornament, cut from coral, and designed, without doubt, for breastpins." It is not stated that they resemble the "cameo" in any other respect than that the figures are carved in relief. The "cameo" is manufactured of a material composed of various colored layers, and so carved in relief as to exhibit different colors in the several parts or elevations of the work. The "cameo," generally known as such in commerce and the arts, is manufactured either of stone or shell, but always exhibiting those characteristics of relief and colors. The coral ornaments in question cannot be regarded as the articles recognized under the designation of "cameos" in the language of commerce or the arts. Nor are they embraced within the classification of "cameos and mosaics, imitations thereof, not set," in schedule G of the tariff of 1857, having no other characteristics of the "cameo" except the carving in relief; and the articles designated "imitations of cameos," as known in the trade, are believed to be usually formed of porcelain or some other plastic material, by moulding or pressure. But if the articles in question could properly be regarded in some sense as "cameos" or "imitations of cameos" in popular parlance, there is, nevertheless, special provision made for them, if manufactured of coral, under the classification in schedule C of the tariff of 1857, of "coral, cut or manufactured." This provision is broad and unqualified, and embraces the articles in question, being of "coral, cut or manufactured," by whatever name they may be designated, or for whatever use they may be intended. The decision of the collector, assessing duty on the articles in question at the rate of 24 per cent, as "coral, cut or manufactured," under schedule C of the tariff of 1857, is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Mass.

LINEN AND COTTON.

TREASURY DEPARTMENT, April 24, 1858.

SIR:—I acknowledge the receipt of your report in regard to the letter of Messrs. Spaulding, Vail, and Fuller, which purports to be an appeal from your decision as to the rate of duty assessed on certain fabrics composed of linen and cotton, upon which, as they allege, you exacted a duty of 24 per cent. The rate of duty to be assessed on articles composed of linen and cotton was determined by the Department in its decisions, under date of the 6th and 12th of October last, on the appeal of Messrs. Paton & Co. and Messrs. Butt, Black, & Guild, from your decision in their respective cases, and the principles established in those decisions dispose of the case now submitted to the Department by the appellants. For the reasons therein stated at large, the fabrics composed of linen and cotton are subject, under the operation of the provisions of the 20th section of the tariff act of 1842, to the duty at the rate of 19 per cent, imposed on "manufactures composed wholly of cotton, not otherwise provided for" in schedule D of the tariff of 1857. The appellants suggest that the 20th section of the tariff act of 1842, which, among other things, imposes on all unenumerated articles manufactured of two or more materials "the highest rates at which any of its component materials may be chargeable," is no longer in force under the tariff of 1857, inasmuch as it conflicts, in their opinion, with the 1st section of that act, which provides that all articles not enumerated in any of its several schedules shall pay a duty of 15 per cent. It must be borne in mind, however, that the tariff act of 1842, in which this provision is found, prescribes also the

rate of duty to be assessed on the articles unenumerated in that act. The tariff acts of 1846 and 1857 prescribe the rate at which duties shall be assessed on articles not enumerated in the several schedules of these acts. The 20th section of the act of 1842 is not more inconsistent with these provisions in the acts of 1846 and 1857 than with a similar one in the law in which it was originally enacted, and the Department is not aware that its legal force and applicability to imports under that act were ever called in question. Under the tariff of 1846, the 20th section of the act of 1842 was always regarded as in force, and there is no provision in the tariff of 1857 which expressly repeals it, or with which it is inconsistent. If it was rightfully regarded as unrepealed, either expressly or by implication, by the tariff law of 1846, it must be held to be still in force under the tariff of 1857, for the provisions of the two acts, so far as they affect the question, are substantially the same. To the appellants' suggestion, therefore, that the courts would probably decide the 20th section of the tariff act of 1842 as no longer in force, in view of the provisions of the 1st section of the tariff act of 1857, which imposes a duty of 15 per cent on all articles not enumerated in that tariff, I have merely to observe that the Supreme Court of the United States has decided that the 20th section of the tariff act of 1842 was not repealed, either expressly or by implication, by the tariff act of 1846, as will be seen by reference to the case of John Stuart and others against Hugh Maxwell, reported in the 16th volume of Howard. If not repealed by the act of 1846, it cannot, of course, be held to be repealed by a similar provision in the act of 1857. It so happens, too, that, in that case, as in the present, the collector assessed the duty imposed on "manufactures wholly of cotton, not otherwise provided for," in schedule D, on fabrics composed of cotton and linen, by applying the provision of the 20th section of the tariff act of 1842. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

LAVA GAS BURNERS.

TREASURY DEPARTMENT, June 15, 1858.

SIR:—Your report on the appeal of William W. Warren, Esq., from your decision subjecting to duty at the rate of 24 per cent, under schedule C of the tariff of 1857, an article imported by him in the steamer "Canada" from Liverpool, and described in the entry as "lava gas burners," and the statement filed by the importers, have been carefully considered. The import in question, it is understood, is not composed of "lava," as might be inferred from its designation in the entry, but of clay or earthy matter found only in certain localities in Bavaria, and is fitted by a chemical process for the purposes indicated by its name. Being composed of earthy or mineral substances, it cannot, as claimed by the appellant, be held to be unenumerated in the tariff, but is clearly embraced in the classification in schedule C, of "earthen, China and stone ware, and all other wares composed of earthy or mineral substances, not otherwise provided for," to which it was referred by the collector, whose decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, &c., Boston, Mass.

JUTE CARPETING.

TREASURY DEPARTMENT, June 16, 1858.

SIR:—This Department has had under consideration an appeal of Messrs. Wild & Julian from your decision subjecting to duty of 24 per cent, under schedule C of the tariff of 1857, an article described by them as "hemp or jute carpeting," which they claim to enter at a duty of 15 per cent, either as embraced in the classification of "manufactures of hemp not otherwise provided for" in schedule E, or as unenumerated in any schedule of the tariff. Schedule D of the tariff of 1857 provides for "jute, sisal grass, and other vegetable substances unmanufactured, not otherwise provided for," and for "matting, China and

other floor matting, and mats made of flags, jute, or grass." These are the only provisions in the tariff for "jute" by name, manufactured or unmanufactured. The article in question is not, in point of fact, "matting or mat," nor known in the trade under that denomination, and is not, therefore, embraced in schedule D of the tariff of 1857 under that classification. If the fabric in question is composed wholly of "jute," it must be held to be an unenumerated article, and, as such, liable to duty of 15 per cent under the provisions of the 1st section of the tariff act of 1857, there being, in the opinion of the Department, no classification in any schedule of the tariff with which it could be assimilated, under the 20th section of the act of 1842, that would impose upon it any other rate of duty. If, however, as it is intimated, the article in question is composed of jute and cotton, it will be classified under the 20th section of the act of 1842, which provides that, "on all articles manufactured from two or more materials, the duty should be assessed at the highest rates at which any of its component parts may be chargeable." This would take it (cotton being the material paying the highest rate of duty) into the classification of "manufactures composed wholly of cotton, not otherwise provided for," in schedule D of the tariff of 1857, subject to the duty of 19 per cent. The decision of the collector is therefore overruled. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, &c., New York.

CAST-STEEL IN COILS.

TREASURY DEPARTMENT, June 19, 1858.

SIR:—I acknowledge receipt of your report, under date of 17th ultimo, on the appeal of Messrs. Naylor & Co. from your decision assessing duties on an importation of "cast-steel in coils," per Kangaroo, from Liverpool. The article in question, it appears, is described in the entry as "cast-steel in bars," and the importers claim admission at a duty of 12 per cent under the classification in schedule F of the tariff of 1857, of "steel in bars, cast, shear, or German," alleging that it is manufactured in the same manner as cast-steel in bars, and is coiled instead of being extended merely for the convenience of transportation. Being of the opinion that cast-steel must be imported "in bars" in order to entitle it to entry under the above cited classification in schedule F, and the article in this case not being in that form, but in "coils," you assessed a duty of 15 per cent under the classification in schedule E, of "steel not otherwise provided for." It is understood that the article in question is reduced from the ordinary steel in bars into the form and size fitted for being drawn into wire, and perhaps for other special purposes; but if, as alleged, it is manufactured by a similar process as cast-steel "in bars," and is applicable to the same general purposes, yet the form in which it is imported is not that which the law has made a prerequisite to entry at a duty of 12 per cent in the classification in schedule F of "steel in bars, cast, shear, or German." Your decision, assessing duty at 15 per cent under the classification in schedule E of "steel not otherwise provided for," is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

PREPARED OPIUM FOR SMOKING.

A question as to the classification of a preparation of opium, imported from China into San Francisco, having been presented by the collector at that port, it is decided by the Department that the article in question not being employed as a medicine, nor in the composition of medicinal preparations, nor recognized in any of the standard pharmacopœias or dispensatories referred to in the act of 1848, prohibiting the importation of spurious or adulterated drugs and medicines, but used exclusively for smoking by the Chinese population of California, cannot be considered as a drug or medicine within the meaning of that act, but must be regarded as an ordinary article of commerce, unenumerated in the tariff of 1857, and liable, as such, to duty at the rate of 15 per cent under the 1st section of that act.

FABRICS OF COTTON—COTTON VELVETS.

Question—the rate of duty to be assessed on an importation of cotton velvets; and also, an appeal from the same collector as to the rate of duty chargeable on the same description of merchandise imported by Mr. George D. Parrish. The article in these cases is a fabric composed entirely of cotton, dyed, and known as "cotton velvet" in the trade, and described in schedule E of the tariff of 1846, as "velvet in the piece, composed wholly of cotton," and subject to duty, under that act, at the rate of 15 per cent. The collector assessed upon the fabric in question a duty of 24 per cent, it being, in his opinion, placed in schedule C, and made subject to that duty by force of the 2d section of the tariff act of the 3d of March, 1857, which transfers to that schedule "all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed." It is true, as alleged by the appellants, that "velvet in the piece, composed wholly of cotton," was provided for in schedule E, in the tariff of 1846; that the tariff of 1857 has reduced the rate of duty on articles embraced in that schedule to 15 per cent, and that the fabric in question is "velvet in the piece." Whether it still remains in that schedule is the question of issue between the importers and the collector. The 1st section of the act of 3d March, 1857, reduces the duties upon the articles enumerated in the several schedules in the tariff of 1846, with certain "exceptions;" and the first of these exceptions is contained in the 2d section of that act, which provides that "all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed," shall be transferred to schedule C. The language of this provision is very comprehensive and unambiguous. There is no reservation or limitation imposed in the law itself, and the Department can impose none. In view of the positive direction of the statute, the only points to be determined in the cases under consideration are, is the fabric in question a "manufacture composed wholly of cotton?" and is it "bleached, printed, painted, or dyed?" It being a manufacture wholly of cotton, and dyed, it must be held to be transferred, by the 2d section of the act of 1857, to schedule C, and subject to duty at the rate of 24 per cent. The decision of the collector is affirmed.

FABRICS OF COTTON—COTTON HOSIERY.

Question—the rate of duty to be assessed on bleached and colored cotton hosiery. The articles in question are composed wholly of cotton, and bleached or dyed. The collector assessed upon them a duty of 24 per cent, as embraced within the designation of "all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed," as transferred, by force of the 2d section of the tariff act of 3d March, 1857, to schedule C. It is contended by the appellants that manufactured articles of this description have not been removed by the act of 1857 from schedule E, in which they were placed in the tariff of 1846, under the classification of "caps, gloves, leggings, mits, socks, stockings, wove shirts, and drawers, made on frames, composed wholly of cotton, worn by men, women, and children," and that they become liable, under the reduction of duties by that act, to duty at the rate of 15 per cent. The articles in question, under the tariff act of 1846, fell within that classification in schedule E, of the tariff of 1846, and they still remain in that schedule, subject to the reduced rate of duty of 15 per cent, unless they have been transferred to some other schedule by the tariff act of 3d March, 1857. The 2d section of that act provides, "that all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed, shall be transferred to schedule C." The Department can give no other construction to the very comprehensive language of this provision than as intended to transfer the articles above enumerated, and known as hosiery manufactured wholly of cotton, and "bleached, printed, painted, or dyed," to schedule C, subject to duty at the rate of 24 per cent, leaving in schedule E, dutiable at the rate of 15 per cent, articles of hosiery, if any, composed wholly of cotton, upon which none of those processes have been performed. The decision of the collector is affirmed.

FABRICS OF WOOL—GENTIONELLA BLANKETS.

Question—the rate of duties to be assessed upon an importation of certain fabrics invoiced and entered as "gentionella blankets." The collector not regarding the fabrics in question as "blankets," within the meaning of that term as used in commerce at the date of the passage of the tariff act of 1846, assessed duty upon them at the rate of 24 per cent, under the classification in schedule C in the tariff of 1857, of "manufactures of wool not otherwise provided for." The importers claim to enter them as "blankets," at a duty of 15 per cent, under the classification in schedule E of the tariff of 1857, of "blankets of all kinds." The views of this Department on the general subject of "blankets," will be found in the "General Regulations," issued on the 1st of February last, on pages 555 and 556. Those regulations are still in force, and will govern collectors in deciding to what class of articles the term "blankets" should be applied. The fabrics in question, not having the texture of blankets, being closely woven, sheared and pressed, and partaking of the character of petersham or pilot cloth, and not appearing to have been known in commerce as a blanket prior to the passage of the tariff act of 1846, but used almost exclusively for coating and wrappers, cannot be considered "blankets," within the meaning of the law, and were properly charged by the collector with duty at the rate of 24 per cent, as "manufactures of wool not otherwise provided for," in schedule C of the tariff of 1857. The decision of the collector in this case is affirmed.

FABRICS OF FLAX—FANCY PACK-THREAD OR TWINE.

Question—the rate of duty on an article claimed to be entitled to entry as "linen thread," under the classification in schedule E of the tariff of 1857, of "manufactures of flax, not otherwise provided for," and subjected to duty at the rate of 15 per cent, duty having been assessed by you on the article in question as a "twine," at the rate of 24 per cent, under the classification in schedule C in the tariff of 1857, of "twines and pack-thread, of whatever material composed." The article proves on examination to be a blue and white or fancy "twine or pack-thread," in common use in the shops for tying up packages, and imported mainly, if not exclusively, for that purpose. The article was rightfully charged with a duty of 24 per cent, under schedule C, as a "twine or pack-thread," and your decision is affirmed.

ADDITIONAL REGULATIONS.

As some additional safeguard is believed to be required to prevent the substitution of fabricated for genuine papers in cases where invoices are verified at one port to be used at another port by the agent of the importer, the following regulation on the subject is promulgated for the information and government of officers of the customs and other persons interested:—

All invoices presented for verification where such invoices are to be used at other ports or to be entered by agents, must be permanently attached to the oath and authentication, and be stamped or marked with the name of the port where verified, the date of verification, and be signed by the officer receiving the same. Each invoice (where several are presented for verification) must be stamped or marked, and an oath attached to each invoice. No invoice deficient in these proofs of genuineness will be admitted to entry, except such as are verified by the oath of the owner or owners at places where there is no collector of the customs, the oath being taken before a public officer duly authorized to administer oaths.

FLOUR MANUFACTURED OF AMERICAN WHEAT IMPORTED FROM CANADA.

Flour manufactured in the British North American Provinces out of wheat, the product of the United States, cannot be imported into the United States free of duty, not being imported in the same condition as when exported. Neither can such flour be imported into the United States free of duty under the reciprocity treaty, as it is not an article of the "growth or produce" of said provinces, being manufactured of wheat, the produce of the United States.

CHANGE IN THE HAMBURG POUND.

CONSULATE OF HAMBURG, NEW YORK, 15th July, 1858.

SIR :—I am authorized officially to bring to the knowledge of the commercial community of this consular district, that the former commercial pound of Hamburg was put out of use on the 1st of January last, and that in its stead the metrical or the German Customs weight, which is 3.1759 heavier, and equal to a half kilogramme, has been adopted. Accordingly, all quotations of prices given in the "*Hamburger Allgemeinen Preis Courant*" have since that date already been calculated for the metrical weight. By bringing this fact to the notice of your readers, you will oblige your obedient servant,

FERDINAND KARCK, Consul.

NAUTICAL INTELLIGENCE.

LIGHTS IN THE DARDANELLES—MEDITERRANEAN.

Official information has been received at this office, that the Turkish government has given notice, that the following lights have been established in the Dardanelles :—

FIXED GREEN LIGHTS AT KILID BAHR.—Two harbor lights at the fort of Namazieh, on the point close to the southward of Kilid Bahr, or the Inner Castle of Europe, in the narrows of the Dardanelles. The lights are fixed green lights, placed vertically at the respective heights of 36 feet and 20 feet above the sea, and should be visible in clear weather from a distance of four miles.

FIXED RED LIGHTS AT CHANAK KALEH-SI.—Two harbor lights on the low battery of Chanak Kaleh-si or the Inner Castle of Asia, on the western side of the town of Chanak or Dardanelles. These are fixed red lights, vertical, the higher at an elevation of 66 feet and the lower 46 feet above the sea, and visible at a distance of 4 miles in clear weather.

FIXED LIGHT WITH FLASHES AT POINT NAGARA.—A light on the tower of Nagara Kaleh-si, or castle, on the point of the same name, on the Asiatic shore of the strait, and 3 miles to the northward of Chanak. The light is a fixed red light, varied by flashes, preceded and followed by short eclipses, placed at an elevation of 39 feet above the sea, and should be visible in clear weather at the distance of 10 miles; but the eclipses do not become total within a distance of 5 miles.

FIXED GREEN LIGHTS AT BOVALI KALEH-SI.—Two harbor lights at fort of Bovali, near the water's edge, on the European shore of the strait, N. N. W. ½ W. 1¼ mile from Nagara Kaleh-si. These lights are fixed green lights, vertical, placed respectively at an elevation of 46 feet and 26 feet above the sea, and they should be seen in clear weather from a distance of 4 miles.

FIXED GREEN LIGHTS AT GALATA.—Two harbor lights at a point near the mouth of a stream, 1¼ mile to the southeast of the village of Galata, on the European shore. They are fixed green lights, exhibited vertically at the respective heights of 62 feet and 42 feet above the sea, and visible 4 miles distant in clear weather. The bank fronting the above mentioned stream has been found to extend 2 cables' length farther out than hitherto indicated by the charts, or one-third of a mile off the shore.

FIXED RED LIGHTS AT POINT CHARDAKH.—Two harbor lights, on the low sandy point of Chardakh or Khardi, N. N. E., 2¾ miles from the town of Lampsaki, on the Asiatic coast. The lights are fixed red, and placed vertically, the higher 59 feet and the lower 39 feet above the sea, and they should be visible in clear weather at a distance of 4 miles. All bearings magnetic—variation 8° W. in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

TREASURY DEPARTMENT, Office Lighthouse Board, May 22, 1858.

LIGHTS ON THE NORTHWEST COAST OF SCOTLAND.

FIXED RED LIGHT AT RU USHENISH, SOUTH UIST.—Ru Ushenish light-tower stands on the easternmost headland on the east side of the Island of South Uist, in the Hebrides, and would exhibit a dioptric or refracting *fixed red* light of the first order, at an elevation of 176 feet above high water, which should be visible from the deck of a vessel in clear weather at a distance of 18 miles. The tower is 39 feet high from the base to the top of the lantern, and colored white.

FLASHING LIGHT AT SOUTH RONA.—South Rona lighthouse is a tower of masonry, 41½ feet high, and painted white, erected on a peak at northeast point of the Island of South Rona, between the west coast of Ross-shire and the Isle of Skye. The light is a catadioptric or reflecting holopotal *white* light of the second order, emitting a *flash* every 12 seconds, at an elevation of 222 feet above high water, and which may be seen in clear weather at a distance of about 20 miles.

FIXED LIGHT AT KYLE AKIN, LOCH ALSH.—A lighthouse has been erected on a point of rock covered at high water spring tides, projecting from the western extremity of Gillean Island or Eilean Dool, at the western entrance of the narrows leading to Loch Alsh. The light is an azimuthal condensing *fixed* light, appearing *white* in the fairway of the inner sound or Sound of Applecross to the southward as far as Paba Island, and also in the fairway of Loch Alsh. Paba Island to the southward, and eastward along the shore of Skye to the south of the fairway of Loch Alsh, and to the northeastward of the fairway of the inner sound, it appears as a *red* light. To the northward of the fairway of Loch Alsh the light is not to be seen. The light is at an elevation of 53 feet above high water, and visible in clear weather 10 miles distant. The light-tower stands at about 53 yards seaward of high-water mark, spring tides, and is connected with Gillean Island by a bridge of five spans. It is built of masonry, 69½ feet in height, and colored white. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

LIGHTS ON THE NORTH AND WEST COASTS OF SCOTLAND.

BEACON ON STROMA SKERRIES, PENTLAND FIRTH.—A beacon has recently been erected on the southwest extremity of the Skerries of Stroma, which extends from the southeastern side of Mallit Head on the Island of Stroma, in the Pentland Firth, and are covered by the sea at high water. The beacon consists of an open frame work of iron, surmounted by a cylindrical cage; in all 40 feet above high water, and painted red.

BEACON ON BO CAOLAS, LOCH INVER.—A beacon has been erected on Bo Caolas, a rock which is covered at high water, and lies at the entrance to Loch Inver, on the west coast of Sutherlandshire. The beacon is composed of cast iron pillars, surmounted by a cylindrical cage; it is elevated about 30 feet above high water, and painted red.

BEACON ON SCREEN ROCKS, WHITHORN.—A beacon has also been placed on the Screen Rocks, at the entrance to the port of Whithorn, on the southeastern coast of Wigtonshire. This beacon is of iron, with a barrel top, and painted red. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

LIGHT AT ISLE ORNSAY, SLEAT SOUND—SCOTLAND, NORTHWEST COAST.

Ornsay light-tower stands on a low point at the southeastern extremity of the Island of Ornsay, in Sleat Sound, or Sound of Skye, and from it would be exhibited an azimuthal condensing light, white, fixed, 58 feet above the sea at high water, and visible in clear weather at a distance of 12 miles. The tower is of masonry, 63 feet in height, and colored white.

FIXED LIGHT IN THE SOUND OF MULL.—A lighthouse has been erected on a small rock at Ru na Gall, on the south shore of the Sound of Mull, Argyllshire, and about a mile to the northward of Tobermory. The light is an azimuthal condensing fixed light, appearing red to the northward out to sea, green towards

the New Rocks, Red Rocks, and Stirk Rocks, and white to the southward in the Sound of Mull. It is at an elevation of about 55 feet above high water, and should be seen from the deck of a small vessel in clear weather at a distance of about 12 miles. The light-tower is 63 feet high, built of masonry, and painted white. It stands at about 50 yards seaward of high water mark, and is connected with the shore by a bridge of two spans. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

LIGHT ON MUCKLE FLUGGA—SHETLAND ISLES, NORTH UNST.

On the 1st day of January, 1858, a permanent light was established in the light-tower erected on the holm or islet called Muckle Flugga, at the north end of the Island of Unst, forming the northwestern extremity of the Shetland Isles. The light is a fixed white light, placed at an elevation of about 230 feet above the mean level of the sea, and should be visible from the deck of a ship, in ordinary weather, at a distance of 21 miles all round the horizon, excepting for an arc of 31 degrees between S. S. E. ¼ E. and S. E. by E. ¼ E., within which arc the light will be red. Southeastward of the Scaw the red light will be masked by the high land of Unst. The illuminating apparatus is dioptric, or by a lens of the first order. The light-tower is of masonry, 64 feet in height, and painted white. It stands in latitude 60° 51′ N., longitude 0° 53′ W. of Greenwich nearly. Vessels in rounding the Scaw of Unst should avoid seeing the red light, by keeping the white light in sight. Mariners are reminded that the small rock called the Out Stack, which is the most northern rock of the Shetland Isles, bears from the lighthouse about E. by N. ¼ N., and is distant about half a nautic mile. Bearings magnetics—variation 25° west in 1857. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

ALTERATION IN COLOR OF BUOYS—SCOTLAND, EAST COAST.

Arrangements have been made by which vessels entering a harbor should keep red buoys on the starboard hand, and black buoys on the port hand, while chequered buoys indicate center patches. The following changes have been made in the color of the undermentioned buoys:—

Dornoch Firth.—Tain bar inner buoy, north side, from black to red; Tain bar inner buoy, south side, from red to black.

Cromarty Firth.—Nigg sand buoys, from black to red; Newhall buoy, from red to black.

Moray Firth.—Whiten Ness sandhead buoy, from red to black.

Inverness Firth.—Craig Mee buoy, from red to black; Skate Bank buoy, from black to red; Munlochy buoy, from black to chequered red and white; Petty Bank buoy, from red to black; Middle Bank buoy, from black to red; Meikle Mee buoy, from black to red. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

NEWLY INVENTED LIFE-BUOY.

A London paper gives the following account of an experiment in the river Seine, which seems to indicate the discovery of an improved life-preserver, in cases of shipwreck:—

Some experiments with a new life-belt, to be used in cases of shipwreck or similar disaster, have been made opposite the Quai d'Orsay, Paris. The apparatus consists of a small waist-belt stuffed with cotton which has undergone a special preparation. It was first tried by a man who jumped into the water near the Pont Royal, and floated down the stream very quietly as far as the Pont de la Concorde. The author of the invention then put on the belt and went into the river, and proceeded for some distance, having two men hanging to

his shoulders. After these two experiments, which were perfectly successful, had terminated, the next point to be ascertained was whether the belt would retain its useful properties if torn. In order to test this, the belt was cut in several places with a knife, and the cotton thus exposed to the action of the water. In this state it was put on by a man, who proceeded down the stream with perfect safety, thus showing the superiority of this invention over the air-belts, which are frequently rendered useless by an accident, and become rather an embarrassment than a means of safety to those who use them.

MARINE LOSSES FOR SIX MONTHS.

The marine losses for the month of June show an aggregate of twenty-two vessels, of which five were ships, one a bark, five were brigs, ten were schooners, and one a steamship. The total value of property lost was eight hundred and fourteen thousand four hundred and one dollars. As compared with the month of June, 1857, the above shows a decrease in the value of property lost of five thousand and ninety-nine dollars.

The vessels reported in this list are chiefly American, although some foreign are included—when bound to or from any United States port, or known to be insured in this country :—

	Vessels.	Value.
Total losses for January	15	$443,500
" for February	33	1,192,300
" for March	33	813,500
" for April (corrected)	33	951,040
" for May	33	714,000
" for June	22	814,401
Total for six months	169	$4,818,741
Same period in 1857	368	10,232,600

GENERAL DESCRIPTION OF THE GULF STREAM.

The *Edinburgh Review* furnishes a graphic and comprehensive description of the mighty "river of the ocean"—the Gulf Stream :—

The general description of the Gulf Stream, apart from any present question as to its sources, is that of a vast and rapid ocean current, issuing from the basin of the Mexican Gulf and Caribbean Sea, doubling the Southern Cape of Florida, pressing forward to the northeast, in a line almost parallel to the American coast ; touching on the southern borders of the Grand Banks of Newfoundland, and at some seasons partially passing over them ; thence, with increasing width and diffusion, traversing the whole breadth of the Atlantic, with a central direction towards the British Isles ; and finally losing itself, by still wider diffusion, in the Bay of Biscay on our own shores, and upon the long line of the Norwegian coast. Its identity in physical characters is preserved throughout the many thousand miles of its continuous flow—the only change undergone is that of degree. As its waters gradually commingle with those of the surrounding sea, their deep blue tint declines, their high temperature diminishes, the speed with which they press forward abates. But taking the stream in its total course, it well warrants the vivid description of our author, and the name he bestows upon it, of "a river in the ocean." This epithet is, in truth, singularly appropriate to this vast current, so constant and continuous in its course, and so strangely detached from the great mass of ocean waters, which, while seemingly cleft asunder to give path to its first impulse, are yet ever pressing upon it, gradually imparing its force, and destroying its individuality.

The maximum of velocity, where the stream quits the narrow channel of Bemini, which compresses its egress from the gulf, is about four miles an hour ; off Cape Hatteras, in North Carolina, where it has gained a breadth of seventy-five

miles, the velocity is reduced to three miles. On the parallel of the Newfoundland Banks, it is further reduced to one-and-a-half miles an hour, and this gradual abatement of force is continued across the Atlantic. The temperature of the current undergoes a similar change. The highest observed is about 85° Fah. Between Cape Hatteras and Newfoundland, though lessened in amount, the warmth of the stream in winter is still twenty-five or thirty degrees above that of the ocean through which it flows. Nor is this heat wholly lost when it reaches and is spread over the coasts of Northern Europe. The waters thus constantly flowing to us from the tropical regions, bring warmth, as well as abundant moisture, to our islands; and Ireland especially, upon which they more directly infringe, doubtless derives much of its peculiarity of climate, its moisture, its verdure, and abundant vegetation, from this source. But the influence of the Gulf Stream does not stop even here. The climate it may be said to convey is diffused over the whole Norwegian coast, the aspects and produce of which singularly contrasts with those of the corresponding latitudes in North America, Greenland, and Siberia. Other causes, doubtless, contribute to this effect, but none, we apprehend, so largely or unceasingly.

JOURNAL OF INSURANCE.

IOWA INSURANCE LAW.

AN ACT TO AMEND AN ACT ENTITLED "AN ACT IN RELATION TO INSURANCE COMPANIES," APPROVED JANUARY 28, 1857; PASSED FEBRUARY 9, 1858.

SECTION 1. Be it enacted by the General Assembly of the State of Iowa, if any insurance company, association, firm, or individual, or their agent or agents, having filed its or their statements and evidences of investments as required by the act to which this is amendatory, and conformed to the requirements of that act, shall have on deposit in any other State or territory, or elsewhere than in this State, any portion of its capital or earnings as a guaranty fund for the exclusive benefit or security of persons insured in such State, territory, or other place, it shall be the duty of the Auditor of State to withhold from such body or individual, so alienating any such portion of their capital and resources, the certificate and authority in said acts provided for, until such body or individual shall file with the Auditor of State a statement, duly verified by the oath or affirmation of the president or secretary of such incorporated company, or member of such incorporated company, association, partnership, or firm, or by such individual, showing the amount of premium received in this State by such company during the year ending on the first of January next preceding the filing of said statement, and shall deposit in this State, in such manner as the Auditor of State shall direct, five per cent of the amount so received in money or solvent State or United States stocks, of at least par value, or mortgages on real estate, situated in this State, of at least double the value for which the same is mortgaged—which statements and deposits shall be so made, from year to year, at the time of each renewal or original grant of authority by said Auditor, until the sum of forty thousand dollars is deposited as aforesaid; which said sum, and every yearly part thereof deposited as aforesaid, shall be held under the control of such Auditor of State, as a guaranty fund for the benefit of such persons as may be in any manner insured in their property by such company within this State, and the same, or any part of the sum so deposited, shall not be drawn out by the depositors until all claims for losses or premiums, or risks unexpired, shall be fully paid and discharged, or until all deposits made in other States, territories, and other places not within this State, shall be withdrawn. And in case of the insolvency of any such company, the sums so deposited as aforesaid shall be applied by the Auditor of State, *pro tanto*, toward the payment of all claims against such body or individual, filed in his office duly liquidated and authenticated, and to losses and premiums on risks unpaid or policies issued within six months after

such insolvency may occur. Any such body or individual shall be deemed insolvent upon failure to pay any undisputed loss insured against, within this State, for the space of ninety days after final judgment for the amount of any loss so insured against. When no appeal shall have been taken from such judgment by either party, or other proceedings begun to vacate, modify, reverse, or review such judgment, or to arrest the same, or to obtain a new trial, such body or individual shall be entitled to receive the interests or dividends on such stocks so deposited from time to time as the same may become due.

This section shall not apply to any of the aforesaid bodies or individuals who have made no such deposit as in this section mentioned, elsewhere than in this State.

SEC. 2. Mutual insurance companies incorporated by any other State than the State of Iowa, upon filing in the office of the Auditor the act of incorporation of said company, together with a written instrument under seal of said company, signed by the president and secretary of said company under oath, certifying that said company is possessed of a capital of at least one hundred thousand dollars, secured by lien on real estate, worth at cash valuation at least five times the amount of said capital, and not encumbered to more than one-half of said cash valuation, shall be entitled to a certificate from said Auditor, with authority to transact business of insurance in this State, and said company shall be exempt from the provisions of an act to which this is amendatory, with the exception of the publication of statement and certificate of the Auditor.

SEC. 3. It shall be the duty of the agent or agents in either of the foregoing sections mentioned, before taking any risks or transacting any business of insurance in this State, to file in the office of the Clerk of the District Court of the county of which he or they may desire to establish an agency for any such company, a copy of the statement required to be filed with the Auditor of State as aforesaid, together with a certificate of said Auditor, which shall be carefully preserved for public inspection by said clerk, and said statement and certificate shall be published one week in three daily, and three weeks in five weekly, newspapers of general circulation in the State of Iowa.

SEC. 4. Section seven of the act to which this is amendatory, and all other acts that conflict with the provisions of this act, are hereby repealed.

SEC. 5. This act to take effect and be in force from and after its publication in the Iowa *Weekly Citizen* and Iowa *State Journal*, without expense to the State.

STEPHEN B. SHELLEDY, Speaker of the House of Representatives.
ORAN FAYVILLE, President of the Senate.

Approved February 9th, 1858.

RALPH P. LOWE.

OFFICE OF THE SECRETARY OF STATE, DES MOINES, February 9th, 1858.

I hereby certify that the foregoing is a true copy from the original roll on file in my office.

ELIJAH SELLS, Secretary of State.

FIRES IN THE CITY OF BROOKLYN FOR SIX MONTHS.

The whole number of fires and alarms during the past six months was 99, of which 16 was in November, 23 in December, 12 in January. 19 in February, 15 in March, 14 in April.

The amount of loss and insurance, as near as could be ascertained, is as follows:—

	Loss.	Insurance.
November	$3,907	$8,050
December	27,880	60,100
January	29,325	30,800
February	20,220	32,050
March	22,720	29,900
April	21,470	39,000
Total	$135,522	$189,900

MARINE INSURANCE.

Nearly all of the great marine insurance companies together, representing a heavy amount of capital, have made their annual statement of operations, according to legal requirement, and are almost uniformly shown to be in a sound and prosperous condition. Nearly all have declared handsome dividends, and have on hand a large available surplus. Compared with the previous year, which was replete with disasters, the year just expired has been exceedingly favorable. The following shows some of the principal items in the transactions of last year in marine risks :—

	Premiums earned.	Losses paid.	Total assets.	Unearned premiums brought forward.
Atlantic	$3,682,583	$2,616,984	$4,071,305	$1,178,160
Great Western	2,451,451	1,337,089	2,276,828	320,151
Sun	1,383,070	1,007,345	1,730,794	314,850
Mercantile	769,480	365,955	931,151	244,454
Pacific	730,841	457,180	670,442	97,244
Union	587,079	336,318	1,271,836	286,830
Ocean	137,843	129,349	636,617	55,980
	$9,742,347	$6,250,220	$11,488,987	$2,497,678

This statement is exclusive of fire insurance, in which some of these companies are more or less engaged. Reports have not as yet been received from the Orient, Commercial, and New York Companies.

RATES FOR CANAL AND RIVER INSURANCE IN THE STATE OF NEW YORK.

From Buffalo to New York, on all kinds of property	per cent. ¼
" Albany	¼
" Syracuse and intermediate places below Rochester	¼
" Rochester and below Lockport	¼
" Lockport and intermediate places	¼
From Rochester, Syracuse, and intermediate places to New York	¼
" all places east of Syracuse to New York	¼
From Oswego to New York	¼
" Albany	¼
" Rome, Utica, and intermediate places	¼
" Syracuse	¼
From New York to Danville, & oth. plac's on collateral canal, exc'pt Oswego canal	¼
From Buffalo to places on the Genesee Valley Canal	¼
Hudson River, on all property, to October 1st	¼
" " after "	¼
From New York to ports on Lake Champlain, to November 1st	¼
To ports on Lake Champlain, after November 1st	1

Deck loads on the river, to be specially insured at special rates, otherwise not covered. Ten per cent return allowed, in lieu of script and interest.

INSURANCE FRAUDS.

R. R. Belknap, Fire Marshal for the city of Brooklyn, in his semi-annual report, remarks as follows :—

In my experience, there is not enough attention paid in searching the titles of property—it can be done at a trifling cost. One case has come under my observation, where the party has sold his premises several months before the fire, and came forward after the fire for his insurance, and it was only by an accident it was discovered. The too common practice of insuring property in different offices, without the knowledge of either company as to the insurance being effected, is very objectionable. I have seen a number of cases where this has

been carried out. I have examined the parties on that particular point, and they have sworn positively that they were insured in one certain office, and no other insurance on the premises; and, after my examination, they made out separate proofs of loss, and presented them to the respective offices—each proof of loss having the necessary affidavit attached, setting forth in each case that no other insurance was on the premises. It was ascertained in time to prevent the fraudulent transaction; and, I may say, it was partly ascertained by accident. These cases I may refer to in some future report, and give the full particulars. I merely mention them at this time to show the necessity of reducing these matters to a complete system. I would suggest that each company send me a line when they meet with a loss. In Brooklyn it will be but a small tax on their time. It would require much more time for me to call on all the different offices than I can possibly spare. It may be said by some, that you can get your information from the party who has sustained a loss. True, I can; and I do in many cases visit the insurance companies. But you will see by the above that there are cases where they have sworn falsely, not only before me, but in their sworn statements to the companies; and, above all, do not settle the loss (unless you know the parties) immediately after the fire, as is often done, for a few days cannot make much difference with the parties sustaining a loss.

POSTAL DEPARTMENT.

LAW RELATIVE TO OCEAN STEAMERS.

The following is the act recently passed by Congress relative to ocean steamers:—

AN ACT MAKING APPROPRIATIONS FOR THE TRANSPORTATION OF THE UNITED STATES MAIL BY OCEAN STEAMERS AND OTHERWISE DURING THE FISCAL YEAR ENDING THE THIRTIETH OF JUNE, EIGHTEEN HUNDRED AND FIFTY-NINE.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That the following sums be, and the same are hereby appropriated, to be paid out of any money in the treasury not otherwise appropriated, for the year ending the thirtieth of June, eighteen hundred and fifty-nine:—

For transportation of the mails from New York to Liverpool, and back, three hundred and forty-six thousand five hundred dollars; and it is hereby provided that there be paid to the Post-office Department, out of said appropriation, such sums as may be required to procure the transportation of the mails from New York to Liverpool, and back, on such days as the Collins line may fail to take them from New York.

For transportation of the mails from New York to New Orleans, Charleston, Savannah, Havana, and Chagres, and back, two hundred and sixty-one thousand dollars.

For transportation of the mails from Panama to California and Oregon, and back, three hundred and twenty-eight thousand three hundred and fifty dollars.

For transportation of the mails between San Francisco, California, and Olympia, Washington Territory, one hundred and twenty-two thousand five hundred dollars.

For transportation of the mails on Puget's Sound, twenty-two thousand four hundred dollars.

SEC. 2. *And be it further enacted,* That there be paid to the Post-office Department, out of the appropriation of three hundred and forty-six thousand five hundred dollars, granted by the first section of the act of third March, eighteen hundred and fifty-seven, "for transportation of the mails from New York to Liverpool, and back," the sum of sixteen thousand seven hundred and fifty-seven dollars and seventy cents, for five outward trips from New York to Liverpool,

to wit :—on fourteenth February and eleventh April, eighteen hundred and fifty-seven, and thirteenth February, thirteenth March, and tenth April, eighteen hundred and fifty-eight, when the Collins line failed to perform service; and that the further sum of thirty-five thousand dollars, or so much thereof as may be necessary, be paid to the Post-office Department, out of the appropriation aforesaid, to enable the Postmaster-General to procure the transportation of the mails from New York to Liverpool, and back, on the twenty-fourth April, the eighth and twenty-second May, and the fifth and nineteenth June, eighteen hundred and fifty-eight, if the Collins line should fail to perform service on those days.

SEC. 3. *And be it further enacted*, That the following sums be, and the same are hereby appropriated, for the service of the Post-office Department for the year ending the thirtieth June, eighteen hundred and fifty-nine, out of any money in the treasury arising from the revenues of said department, in conformity to the act of the second of July, eighteen hundred and thirty-six :—

For transportation of the mails from New York, by Southampton or Cowes, to Havre, two hundred and thirty thousand dollars.

For transportation of the mails between Charleston and Havana, fifty thousand dollars.

For transportation of the mails across the Isthmus of Panama, one hundred thousand dollars.

SEC. 4. *And be it further enacted*, That it shall not be lawful for the Postmaster-General to make any steamship or other new contract for carrying the mails on the sea for a longer period than two years, nor for any other compensation than the sea and inland postage on the mails so transported.

SEC. 5. *And be it further enacted*, That the Postmaster-General be, and he is hereby authorized to cause the mails to be transported between the United States and any foreign port or ports, by steamship, allowing and paying therefor out of any money in the treasury not otherwise appropriated, if by an American vessel, the sea and United States inland postage, and if by any foreign vessel, the sea postage only, on the mails so conveyed; provided, that the preference shall always be given to an American over a foreign steamship, when departing from the same port for the same destination, within three days of each other.

Approved 14 June, 1858.

OCEAN TELEGRAPHS.

After a season of some anxiety the news at last reached us of the failure of the attempt to lay the ocean cable after three trials, by which, in the whole, some four hundred miles of the cable had been lost. The failure is not definite, but has inflicted an immense disappointment upon the public mind. Hopes had been entertained that ere this we should be in communication with the cities of Europe by telegraph, but these anticipations are postponed for the present. The causes of failure, as far as known, are not such as to induce despair of final success, and the company may renew its efforts on some newly-devised plan. If it should be firmly determined that water communication is not practicable, the land route is still open, and offers increasing facilities, since the discoveries of gold on Frazer's River have attracted thither the enterprise of the world; and simultaneously Russian enterprise on the opposite Asiatic coast is producing a similar state of things. These circumstances not only facilitate a communication across the Fox or Aleutian Islands, but make one, in some degree, necessary. The water passage by that route will give but two or three hundred miles at most. If the world has yet to wait it will not be long before it is encircled by the wires. It is one of those events that the mind regards as certain, although it cannot quite be convinced of the mode of arriving at it.

TELEGRAPH LINES.

To show the progress which has been made throughout the world in building telegraph lines, we give a summary of the existing lines in the world :—

	Miles.
America	45,000
England	10,000
France	8,000
Germany and Austria	10,000
Prussia	4,000
Russia	5,000
The rest of Europe	7,650
India	5,000
Australia	12,000
Other parts of the world	500
Total length of telegraph lines, 1858	96,350

The number of messages passing over all lines in the United States is estimated at about 4,000,000 per annum.

Until the year 1850, the submarine cable was practically unknown. In that year the first submarine cable was laid from Dover, England, to Calais, France. The cable was twenty-four miles long, and has since been in operation, with one interruption, with complete success. Since that period the following submarine lines have been laid, and are now in operation :—

RECAPITULATION OF THE EXISTING LINES OF SUBMARINE TELEGRAPHS.

Cables.	Miles.	Wires.	Date.
Dover and Calais	24	4	1851
Dover and Ostend	75	6	1852
Holyhead and Howth	65	1	1852
England and Holland	115	3	1853
Port Patrick and Donaghadee	13	6	1853
" " second cable	13	6	1853
Italy and Corsica	65	6	1854
Corsica and Sardinia	10	6	1854
Denmark, across the Great Belt	15	3	1854
Denmark, across the Little Belt	5	3	1854
Denmark, across the Sound	12	3	1855
Across the Frith of Forth (Scotland)	4	4	1855
Varna and Balaklava (across the Black Sea)	340	1	1855
Balaklava and Eupatoria	60	1	1855
Across the Danube, at Shumla	1	1	1855
Across the Hoogly River	2½	..	....
Messina to Reggio	5	1	1856
Across the Gulf of St. Lawrence	74	1	1856
Across the Straits of Northumberland, Prince Edward's Island.	10½	1	1856
Across the Bosphorus, at Kandili	1	1	1856
Across the Gut of Kaneo, Nova Scotia	..	3	1856
Six cables across the mouth of the Danube, at the Isle of Serpents, each one mile long, and having one conductor	6	6	1857
Across the Mississippi, at Paducah	1	1	1851
From Petersburg to Constradt	10	1	1856
Across the St. Lawrence, at Quebec	..	1	1855
Across the Soland, Isle of Wight (England)	3	4	1855
Small river crossings	20	..	....
Total length of submarine cables	950	..	....

Taking the security of submarine cables when properly laid into account, they are preferable on long routes to the ordinary line, except when through a country particularly favorable. The cost is greater, but not beyond the limit of good

dividends. It is estimated that a telegraph could be put round the world at a cost in round numbers of five hundred dollars a mile, or twelve-and-a-half millions of dollars for the whole, which is about one-third of the cost of the Erie Railroad. It is, therefore, obvious that the Atlantic cable will be, ere long, but one division of the electric band that shall gird the globe.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

BRITISH RAILWAYS.

At the present time nearly 9,000 miles of railway have been completed in the British Isles, and it may be assumed that about 21,000 miles are open for traffic in the rest of Europe, and 25,000 in America. Some idea of the relative accommodation afforded by railways to the population of different countries is afforded by dividing the amount of money expended on railways in each country by the number of its inhabitants. Thus, in 1855, the money expended per inhabitant amounted to 195 shillings in Great Britain; 43s. in Belgium; 36s. in France; 83s. in Prussia; 25s. in Germany; and 8s. in Austria. At the beginning of the present year, the money expended upon railways in Great Britain and Ireland amounted probably to £313,000,000.

Taking, at an average, 70,000 cubic yards to a mile, the earthwork will measure 550,000,000 cubic yards. It is computed that no less than 80,000,000 of miles are annually traversed on these railways. Now, to run 80,000,000 miles per annum, 2½ miles of railway at least must be covered by trains during every second of time throughout the entire year. To work these railways, there must be, at present, at least 5,000 locomotive engines. The number of vehicles of every sort employed cannot be less than 150,000. Taking the length of each vehicle at 20 feet, 150,000 linked together in one train would reach from London to Aberdeen, a distance of 500 miles.

Some 111,000,000 passengers travel yearly on these railways at an average of 12 miles each. They perform the journey in half-an-hour. At the average speed of the stage coach, a journey of 12 miles would take an hour-and-a-half. Here is a direct saving of one hour upon every average journey performed by 111,000,000 persons annually. These 111,000,000 of hours saved are equal to 14,000,000 days, or 38,000 years. In the life of a working man, supposing him to work eight hours a day, and allowing at the rate of 3s. per day for his labor, the annual saving to the nation, on this low average scale, would be not less than £2,000,000 per annum.

The average rate of interest upon capital earned by railway shareholders has been in England 3.5 per cent; Scotland, 2.7 per cent; Ireland, 4 per cent. Such a return as this cannot be considered a fair remuneration for capital expended on property subject to such deterioration. In all European countries, the passenger traffic is divided into three classes, of which the proportionate number traveling by each class is nearly as follows:—

	First.	Second.	Third.	Total.
British Isles	13	32	55	100
France	9	33	68	100
Germany	1.5	2.15	77	100
Austria	2	24	74	100

On the German and Austrian railways the first and second classes are nearly identical with the first class on English railways. On the French railways the first, second, and third class carriages are used very much by the same classes as on English railways. In the United States, with the exception of the emigrant class, there is only one class of passengers.

CINCINNATI, HAMILTON, AND DAYTON RAILROAD COMPANY.

At the annual meeting of the stockholders of the Cincinnati, Hamilton, and Dayton Railroad Company, held at the office of the company, the first business was the presentation of the reports of the heads of the several departments. The president's report contains the following facts with reference to the finances of the company :—

RECEIPTS FOR THE YEAR.

From Passengers	$232,596 90
Mails and express	18,868 93
Freights	214,272 81
Rent of machinery	21,683 08
Total	$487,421 27
Expenses of transportation, &c.	226,658 15
Leaving for interest, taxes, and dividends	260,763 12

Passengers carried, 1858, 370,951 ; 1857, 362,630. The transportation expenses were reduced during the year, chiefly since the 1st of January, $33,443 42. The earnings, after paying expenses, interest, interest on bonds, and taxes, were applied as follows :—

Scrip dividend issued in 1854	$111,846 70
Ohio and Mississippi connection	6,687 00
Real estate for same	9,796 00
Purchase of first mortgage bonds on account of sinking fund	5,400 00
Total	$133,229 70
Present floating debt	145,453 01
Assets	107,998 82
Excess of debt	$37,454 19

The report states that no passenger was injured, or property damaged to any extent worthy of notice during the year.

WELLAND CANAL TOLLS.

We have obtained an official copy of the rates of toll on the Welland Canal since the reduction, of which the following is a correct transcript. All articles enumerated in "Class No. 4," have been reduced from 30 cents to 25 per ton weight, and in "Class No. 5," from 45 to 30 per ton :—

CLASS NO. I.

Vessels of all kinds ..... per ton	$0 02½
Passengers 21 years and over, each	0 10
Passengers under 21 years, each	0 05

CLASS NO. III.

Apples, bark, bricks, cement, clay, coal, corn, gypsum, hemp, iron, (pig, scrap, railroad, bloom, and broken castings,) lime, manganese, manures, marble, onions, ores, (other than iron ore,) potatoes, salt, sand, slate, stones, (wrought or unwrought,) tobacco, (unmanufactured)	0 20

CLASS NO. IV.

Ashes, (pot and pearl,) bacon, barley, beer, bran and ship stuffs, broom corn, butter, cider, bones, cattle, cotton, (raw,) flax, hay, (pressed,) hogs, hoofs, horns, junk, lard, lard oil, meals, (of barley, rye, corn, and oats,) nails, oats, oil cake, oil meal, pork, rags, rye, seed of flax and clover, sheep, spikes, stoves and other iron castings, and all other iron not otherwise described, tallow, vinegar, and window glass.....per ton weight	0 25

CLASS NO. V.

Beef, beeswax, biscuits, carts, charcoal, cheese, coffee, copperas, earthenware, fish, furniture and baggage of settlers, flour, glassware, hams, hides and skins, (raw,) horses, manila, mechanics' tools, molasses, oakum, plows, sleighs, steel, stoneware, sugar, tin, wagons, wheat, and all other agricultural produce not enumerated, and not being merchandise, whisky, and wool.....per ton weight	0 30

CLASS NO. VI.

All goods and merchandise not enumerated.....per ton weight	1 00

CLASS NO. VII.

Barrels, empty, each.....	0 02
Barrel hoops.....per M.	0 03
Boards, planks, scantling, and other sawed timber, reduced to inch measure, in vessels.....per M. superficial feet	0 30
Siding lath and other sawed stuff, less than 1 inch thick..per M. superficial feet	0 30
Do., do., on rafts.....	0 60
Boat knees, each.....	0 05
Fire wood.....per cord, in rafts	0 12½
Floats, per 100 .....for each lock passed	0 03
Saw logs 12 feet long, if longer in proportion, entering the canal, each.....	0 03
Do., leaving the canal.....	0 17
Shingles.....per M.	0 07
Split posts and fence rails in vessels.....	0 40
" " " raft.....	0 80
Staves and headings, (barrel).....	0 40
" " (pipe).....	2 00
" " (West India).....	0 75
Timber, (oak, pine, or other,) square (or round above 12 by 12) in vessels, per M. c. feet.....	5 00
Do., do., in raft, when permitted to pass through the canal...per M. c. feet	8 00
Do., round or flattened under 12 by 12, railroad ties in vessels per M. lineal ft.	4 00
Do., do., in raft, when permitted to pass through the canal..per M. lineal ft.	7 00
Traverses, per 100.....for each lock passed	0 01
Ax-handles, bedsteads, and blind stuff, broom and brush handles, brush backs, chair stuff, door stuff, felloes, fence pickets, gun stocks, handspikes, hoop and hop poles, hubs, lasts, looking-glass backs, oars, plane stocks, plow handles, sash stuff, spokes, treenails, and turned ware, per ton measure of 40 cubic feet.....	0 40

PRUSSIAN RAILWAYS.

The budget (government) of the administration of telegraphs shows that the receipts exceeded the expenses by 244,200 thalers; and 200,000 of them are to be employed in completing the telegraph lines, the length of which, at the end of the present year, will be 4,625 English miles. Prussia is the first country on the continent which established telegraphic lines, and opened them to the public; and it was she who formed the Austro-German Telegraphic Union. The sum she has disbursed for the construction of her lines is 1,700,000 thalers. A thaler is about 64 cents of our money.

TRADE OF THE DISMAL SWAMP CANAL.

TRADE OF THE DISMAL SWAMP CANAL IN THE ARTICLES ENUMERATED UNDER THE SEVERAL HEADS, FROM THE YEAR 1841 TO 1857, INCLUSIVE.

Years.	Bales cotton.	Barrels fish.	Bbls. naval stores.	Spirits turp'ne.	Cwt. bacon.	Kegs lard.	Bushels corn.	Bushels flax-seed.	Bushels wheat.
1841...	3,127	39,213	28,002	555	2,805	812	291,164	2,787	31,585
1842...	3,932	35,571	17,768	473	1,600	635	228,851	2,375	30,073
1843...	736	25,526	28,066	587	819	258	9,941	3,267	81,612
1844...	2,768	38,708	24,511	724	569	456	543,082	6,219	91,216
1845...	6,523	43,864	29,526	807	1,664	842	1,007,036	7,795	58,817
1846...	4,490	48,053	20,286	551	4,805	1,251	806,628	5,658	106,394
1847...	3,723	47,415	34,686	820	4,496	1,328	1,266,908	3,004	41,619
1848...	2,570	33,154	27,054	...	1,512	1,263	824,016	3,145	71,059
1849...	2,384	43,470	25,576	788	1,259	792	1,315,507	2,621	38,872
1850...	2,096	38,884	24,950	705	2,068	1,221	1,315,142	2,117	47,598
1851...	3,298	30,149	32,883	206	1,799	855	841,632	5,913	113,497
1852...	4,947	24,395	31,633	94	2,668	522	837,748	6,235	117,613
1853...	5,733	24,777	32,760	479	2,234	841	1,560,845	2,975	63,864
1854...	4,921	30,821	53,332	179	2,979	1,050	1,176,069	4,067	113,804
1855...	6,062	20,057	31,101	50	2,351	766	1,165,146	1,112	74,099
1856...	4,603	16,456	21,945	17	1,977	754	1,300,206	2,751	115,938
1857...	4,690	14,761	19,969	1,039	1,050	532	745,058	1,594	176,564

Years.	Bushels peas.	Bushels potatoes.	Cubic feet merchant timber.	Superficial feet plank scantling.	Pipe staves.	Hhd. staves.	Barrel staves.
1841.....	6,909	18,814	121,463	2,977,936	881,520	3,514,610	495,310
1842.....	19,977	15,212	195,335	2,462,196	603,700	5,904,760	382,850
1843.....	9,378	8,826	115,492	2,029,380	298,290	7,512,460	236,540
1844.....	25,842	12,650	100,743	2,173,704	394,040	4,831,570	362,700
1845.....	26,611	19,445	86,415	3,380,804	711,670	6,002,620	219,110
1846.....	27,333	8,496	107,374	2,319,360	186,120	5,531 070	321,480
1847.....	31,963	11,597	49,182	1,761,654	92,470	5,219,980	284,620
1848.....	24,060	7,272	125,995	2,317,848	139,620	6,961,130	183,260
1849.....	18,389	9,429	122,193	2,957,352	398,170	7,336,500	298,690
1850.....	19,468	8,470	138,268	3,444,864	513,320	7,833,060	287,370
1851.....	22,346	8,788	199,911	4,605,144	564,030	8,834,660	460,800
1852.....	9,859	12,918	152,134	5,658,684	574,800	7,398,280	277,540
1853.....	20,695	28,044	100,049	5,368,644	177,450	5,376,330	147,000
1854.....	17,428	10,374	164,089	5,945,186	117,350	6,928,980	118,160
1855.....	23,375	14,948	264,189	3,795,860	12,600	9,541,370	88,700
1856.....	14,463	31,029	212,356	3,426,700	12,500	5,789,220	61,400
1857.....	12,978	21,640	444,533	2,788,188	141,262	4,036,240	115,860

Years.	Long shingles.	Two-feet shingles.	Bunch shingles.	Coopers' staves.	Fence rails.	Fire-wood.
1841...	4,575,190	3,144,510	28,413,790	337,960	10,773	4,426
1842...	3,484,480	2,386,960	23,710,630	237,680	39,330	4,865
1843...	2,291,370	1,553,920	26,611,650	94,160	39,202	9,128
1844...	2,903,064	2,344,210	24,588,110	207,070	29,160	8,496
1845...	2,652.500	1,378,510	26,943,880	284,730	14,710	8,076
1846...	1,591,500	1,152,510	22,625,160	315,140	13,900	6,164
1847...	1,116.540	1,052,800	22,455,840	301,340	13,406	4,943
1848...	2,085,290	1,889,690	28,018,200	340,130	17,098	6,439
1849...	1,811,170	1,743,920	26,143,030	202,410	9,560	4,264
1850...	2,751,750	2,272,570	25,045,740	198,610	14,380	5,541
1851...	3,514,540	4,449,610	35,945.610	204,930	25,800	4,988
1852...	3,596,060	5,125,750	46,503,360	150,470	25,460	5,296
1853...	2,985,970	3,827,230	37,234,270	167,480	5,380	3,840
1854...	2,547,370	3,912,480	37,904,620	91,930	11,410	5,623
1855...	1,924,499	4,123,850	34,208,020	60,589	200	4,417
1856...	1,730,920	3,063,530	36,951,050	169,500	13,850	4.281
1857...	1,660,940	4,027,340	46,915,150	312,310	14,520	5,439

RAILROAD STATISTICS, &c.

The following statistical table, prepared on a rainy day by an intelligent and careful observer, will be interesting to all readers :—

There are in the United States one hundred and seventy-four railroads, of which twenty-two are in progress of construction. Fifty eight only of this number pay dividends from 2¼ to 22 per cent per annum, viz. :—

1 ..... per cent	22	2 ..... per cent	7¼
1	20	6	7
1	15	15	6
8	12	5	4
10	10	1	3¼
5	9	8	3
4	8	1	2¼

The longest road is the New York Central, 556 miles; total cost and equipment, thirty millions, and last dividend eight per cent. The shortest is the Erie and Northeast, 20 miles; cost and equipment seven hundred and fifty thousand, and last dividend ten per cent. The largest dividend is made by the Galena and Chicago Road, and the smallest by the Raleigh and Gaston. It therefore appears from this statement (abbreviated from the American *Railroad Journal*, May 22,) that ninety-four completed roads make no dividend at all. Of the whole number, only eight have not contracted debts. The debts are enormous, the lowest $8,242, and the highest $28,081,468; and it also appears that twenty of the companies have borrowed the round sum of *two hundred millions of dollars!*

That the construction of such a long line of railways has contributed immensely to the general wealth of the country there can be no question, yet the pockets of a large majority of the stockholders have suffered considerably. It is high time that railroads should be built with funds contributed by stockholders only. It is well established that the crisis, from which we have but recently recovered, was partly precipitated by the financial condition of many of the extensive railroad companies, and this should be a warning to new concerns.

CAMDEN AND AMBOY RAILROAD AND DELAWARE AND RARITAN CANAL.

The following are the returns of the joint companies of the Camden and Amboy Railroad and the Raritan Canal. The capital and debts are—

	Capital.	Funded debt.	Floating debt.
Camden and Amboy	$1,500,000	$10,000,000	$400,000
Delaware and Raritan.....	1,500,000	.....	... ...

CAMDEN AND AMBOY RAILROAD COMPANY.

	Cost.	Receipts.	Expenses.	Net.	Dividends.
1853....	$4,523,509 74	$1,744,207 02	$1,145,473 14	$598,734 88	12 p. cent cash.*
1854....	4,768,184 58	1,682,486 23	1,130,029 10	552,457 13	12 p. cent cash.
1855....	4,877,931 23	1,501,787 57	870,557 89	631,229 68	12 p. cent cash.
1856....	4,950,592 36	1,640,787 52	1,046,673 41	594,114 11	12 p. cent cash.†
1857....	5,563,580 11	1,611,303 05	943,491 26	667,811 79	7 p. cent cash.‡

DELAWARE AND RARITAN CANAL COMPANY.

1853....	$3,623,052 81	$382,248 33	$154,654 93	$227,493 40	12 p. cent cash.§
1854....	3,707,915 90	474,940 39	171,753 98	303,186 41	12 p. cent cash.
1855....	3,758,542 32	515,939 59	184,628 35	331,311 24	12 p. cent cash.
1856....	3,843,504 05	511,331 44	179,190 64	332,140 80	12 p. cent cash.
1857....	3,863,908 59	484,981 75	195,079 87	289,901 88	7 p. cent cash.‖

* And 12 per cent bonds.

† The report says:—"Five dividends have been paid in cash during the year, of six per cent on the capital stock of the joint companies.

‡ And 20 per cent in stock. § And 12 per cent bonds. ‖ And 20 per cent in stocks.

RAILROADS OF INDIA.

A Parliamentary paper has just been issued, which contains some interesting particulars of the amount of capital and interest subscribed and paid on account of the railways in India. The total amount of capital amounts to £28,314,300, divided as follows :—

East India Railway	£10,731,000
East India Peninsula	8,333,300
Madras	4,000,000
Scinde and Punjaub	2,500,000
Bombay, Baroda, and Central India	1,750,000
Eastern Bengal	1,000,000
Total	£28,314,300

The total amount of interest paid on the above capitals to the 31st March was £1,881,426 17s. 9d. Of this amount, £1,800,748 was paid in England, and £80,678 in India. The capital actually paid up is £16,073,584. Of this amount, £15,496,605 has been paid in England to March 31st, 1858, and £576,979 in India. To the above sum must be added £100,000 paid to the East India Company by the Scinde Railway Company on account of the Punjaub Railway.

ACCIDENTS ON ENGLISH RAILROADS.

The Board of Trade Report, by Captain Galton, on railway accidents for the year 1857, has just been issued, says *Herapath's Railway Journal*, and from it we learn that in the year 25 passengers were killed, and 631 injured, "from causes beyond their own control."

These are all the real railway accidents in the year. There were others, such as from suicide, trespassing, &c., but they cannot properly be placed against the account of railways.

The 25 fatal railway accidents in 1857 occurred mostly on English railways. Of the 25, as many as 24 occurred in England, and of these 25 exactly half—12—were killed in one accident, namely, the Lewisham accident on the South Eastern Railway. One passenger was killed on Scotch railways. "In Ireland, (reports Captain Galton,) there were no passengers killed or injured from causes beyond their own control." On most of our railways in England no fatal accidents have occurred.

The South Eastern have had to pay a pretty penny for the Lewisham accident, for Captain Galton informs us that "the compensation alone in the case of the Lewisham accident on the South Eastern Railway amounted to £25,000 ;" £25,000 in compensation for one accident!

The figures following will show how infinitesimally small is the number of fatal accidents to passengers in relation to the number of passengers carried :—

Years.	Number of miles railway open.	Number of passengers conveyed.	Number of passengers killed.	Proportion of killed to carried.
1850	6,826	72,854,422	12	1 in 6,071,202
1851	6,755	85,391,095	19	1 in 4,494,268
1852	7,113	89,135,729	10	1 in 8,913,572
1853	7,488	102,286,660	36	1 in 2,841,296
1854	7,842	114,358,888	12	1 in 9,529,907
1855	8,175	118,595,134	10	1 in 11,859,513
1856	8,499	129,847,592	8	1 in 16,168,449
1857	8,900	(returns not complete.)	25	(can not be calculated.)

The proportion of passengers killed to passengers carried will probably be found to be, when the calculation can be made, about one in 5,200,000 in last year; one passenger killed for every 5,200,000 carried.

Bad, therefore, as 1857 has been for accidents, it is better than 1851 and 1853.

COAL-BURNING LOCOMOTIVES.

The Illinois Central Railroad has successfully introduced coal-burning engines, thereby effecting a great saving. There are also eight coal-burning locomotives now in use on the Hudson River Railroad, six between this city and Poughkeepsie, and two between Poughkeepsie and Albany. According to the statistics furnished by Mr. A. F. Smith, Superintendent, it appears that the cost of fuel for motive power, where coal is used, is very little more than one-fourth what it is when using wood. To make a round trip from New York to Poughkeepsie and back, 144 miles, with a freight train, averaging twenty-one cars, it requires 6¼ cords of the best Virginia pine wood, which cut and put on the tender, costs $6 06 per cord, or $40 15 for trip, while it requires only 4,193 pounds of coal at ¼ cent per pound, or $10 48 to perform the same work. And the express passenger train makes the round trip from this city to Poughkeepsie and back with 3,604 pounds of coal, being an expense only of $9 04 for fuel.

JOURNAL OF MINING, MANUFACTURES, AND ART.

MANUFACTURES IN MASSACHUSETTS.

The Massachusetts State census for 1855, contains the following figures in relation to the leading industries of that State :—

COTTON.	Quantity.	Value.
No. of mills.....	294	.....
Spindles.....	1,519,527	.....
Cotton used..lbs.	105,851,749	.....
Y'ds cloth made	314,996,567	$24,359,212
Yarn..... .lbs.	3,321,146	830,546
Cotton thread..	534,393	285,934
Batting.....lbs.	4,825,686	395,374
Pelisse wadding	370,000	139,865
Cott'n flan'l y'ds.	3,227,620	120,056
" wicking..lbs.	15,000	9,550
Total value.....		$26,140,537
Capital invested.....		31,961,000
Males employed	11,937	.....
Females "	22,850	.....
Calico print'd.y'ds.	61,040,000	5,143,000
Goods bleached.	1,000,000	70,000
Total.....		$5,213,000
Capital.....		1,980,000
Bl'ch'd & col'd.y'ds.	66,400,000	5,111,200
" " lbs.	483,400	
Capital.....		659,000
Hands.....	644	.....

WOOLEN.	Quantity.	Value.
No. of mills	146	.....
Setts.....	695	.....
Wool used ...lbs.	18,786,298	.....
Broadcloth...y'ds.	759,627	$837,650
Cassimeres.....	6,444,585	5,015,441
Satinets.....	6,736,082	2,708,935
Jeans.....	1,948,609	31,000
Flan'l or bl'nketing	10,279,227	3,125,949
Woolen yarn...lbs.	689,957	386,537
Total value.....		12,405,512
Capital.....		7,305,500
Hands.....	10,190	.....
Carpeting mills..	13	.....
Cotton used...lbs.	53,000	.....
Wool used.....	2,880,974	.....
Carpets.....y'ds.	1,988,460	1,362,819
Capital.....		1,236,000
Linen factories....	4	.....
Linen .....y'ds.	2,600,000	1,240,000
Linen thread...lbs.	1,150,000	200,000
Capital.....		550,000

The aggregates of these figures, as compared with 1845, show results as follows :—

	1845.	1855.
Cottons.....	$12,193,449	$26,140,538
Calico.....	4,779,817	5,213,000
Bleached.....	2,264,700	5,111,200
Woolen.....	8,877,878	12,105,514
Carpeting.....	834,322	1,362,819
Worsted.....	$654,566	$1,448,740
Hose.....	94,892	207,160
Linen.....	145,000	1,440,000
Silk	150,477	800,000
	$29,995,181	$53,828,971

This gives a very satisfactory increase in the value produced in the State, and shows a different state of affairs from that which the census of the State of New York shows in regard to the affairs of this State. It is undoubtedly the case that the impulse given to business in the last few years of gold excitement, and the gradual extension of credits, have since collapsed.

LOWELL MANUFACTURES.

The summary of the Lowell factories for January, 1858, was as follows :—

	1858.	1852.
Capital	$13,900,000	$13,900,000
No. of mills	52	51
Spindles	396,064	342,722
Looms	12,085	9,909
Females employed	9,023	8,476
Males "	4,247	4,168
Cotton cloth made per week.....yards.	2,309,000	2,550,000
Woolen " " "	30,000	27,000
Carpets	25.000	25,000
Rugs.....No.	50	.....
Cotton consumed per week.....lbs.	810,000	810.000
Wool " " "	91,000	100,000
Printed and dyed.....yards.	470,000	16,575,000
Coal used.....tons.	29,600	30,575
Charcoal.....bush.	25,150	68,350
Wood.....cords.	1,340	3,220
Oil.....gals.	61,517	69,677
Lard oil	20,000	47,000
Starch.....lbs.	1,585,000	1,409,000
Flour.....bbls.	1,245	1,565
Average wages females per week	$2 00	$2 00
" " males "	$4 80	$4 80
Average of a loom, 14 yarn.....yards per day.	45	45
" " " 30 "	33	33
" " spindle per day	1¼	1¼

STEAM BOILERS.

A new kind of steam boiler is announced as among the recent mechanic inventions of the day. This boiler is of cylindrical form, and is terminated by hemispherical, or nearly hemispherical, ends. The boiler is set in its casing of brick work in a vertical position, and the hot air and the fire are made to circulate about and through the boiler in the following manner:—The fire is conducted from a couple of puddling or mill furnaces through two flues, and delivered near the bottom of the boiler. After being made to circulate about the vertical sides of the cylindrical boiler, the fire enters a horizontal flue, passing through the boiler at a point a little higher than its middle. The fire enters the horizontal flue at both ends, and passes up a vertical flue or chimney, which is situated in the axis of the boiler, and opens into the horizontal flue. A damper is situated at each end of the horizontal flue, and by the dampers the draught may be regulated. That part of the vertical chimney which is within the boiler is surmounted with an air space, that is, there is an annular layer of air between the chimney and the boiler, the chimney being isolated, so far as its temperature is concerned, from the upper part of the boiler. The isolating air space descends to a point below the water level of the boiler, and any tendency which would otherwise attend the overheating of the chimney is avoided.

MANUFACTURE OF LUMBER IN ST. ANTHONY.

As an item of the progress of St. Anthony, notwithstanding the "hard times," we have thought proper to give an estimate of the amount of lumber which is now manufactured and consumed at this point, together with the number of hands in employ. We commence with the mill of the Water Power Company. This mill is now run by E. S. Brown, and the following is the daily estimate as he has given it to us. It is low, as any one will see who is at all acquainted with the capacity of the mill :—3 gangs. cutting 12 hours, 60,000 feet ; 8 single saws, cutting 12 hours, 32,000 feet ; 2 lath machines, cutting 12 hours, 50,000 lath ; 2 shingle machines, cutting 12 hours, 20,000 shingles.

This gives a sum total of 92,000 feet long lumber, 50,000 lath, and 20,000 shingles every twelve hours. Mr. Brown informs us that his sales range about as follows :—sales per day 50,000 long lumber, 20,000 shingles, 25,000 lath. This mill employs about 150 men.

Mars' mill, in upper town, cut about 2,700,000 feet last season. We presume it is now cutting on an average, at a low estimate, at least 70.000 feet per day ; and from the amount of building in upper town we should judge that there is full as large a sale.

Rogers, Stimson, & Kent, now manufacture about 30,000 feet of long lumber, 8,000 lath, and 7,000 shingles per day, and have a full demand for everything. They employ over 50 men.

The furniture establishment of W. L. Pingree manufactures about 5,000 feet of lumber, principally hard wood, per week, with twelve hands in employ. Their home market, until the hard times came on, was at the rate of about $20,000 per year.

Of the old logs now in the pond of the Water Power Company, there are now about 1,500,000 feet ; in Coon Creek Boom about 2,500.000, in Dunham Island Boom, 1,500,000, and about 5,000,000 in Rum River. These quantities, added to the contents of the side booms at Mars' and Bassetts' mills, which now contain about a million, makes a total of 11,500,000 feet of old logs yet above. Besides these there are about 8,000,000 now lying in Lake Pepin, and between here and there. These will be rafted through to find a market below, while not one of them should have gone over the falls. About 35,000,000 feet of new logs are coming down this spring. This is hardly a third of the amount which has sometimes been cut. But start the railroads and then we will show you.

MANUFACTURING STOCKS.

The following is an interesting statement from Messrs. Dupee, Beck & Sayles' circular, of the market prices of several leading manufacturing companies. In order to make absolutely fair comparisons, there should be given the respective conditions of each, on the several dates, as regards capital and amount of machinery in operation.

In the absence of printed annual statements, this desirable information cannot be given. The lowest prices for 1842 are taken for the first column, as showing the extremes of period of a great depression. The following year witnessed considerable improvement. Then came 1844 to 1847, inclusively, a time of unprecedented prosperity. The second column gives the highest prices of 1847. From that time, manufacturing corporations, through a variety of influences, but mainly

from an increase of production in far greater ratio than consumption, have gradually declined in value. Executor's sales in October, 1854, and in May, 1856, determined the prices given for those years. Recent sales are the bases for most of those in the last column.

Essex and Hadley Falls, although land and water power companies, are included on account of their entire dependence on manufacturing interests.

The figures in the first two columns are taken from Mr. J. G. Martin's valuable tables :—

	Par.	1842.	1847.	1854.	1856.	1858.
Amoskeag	$1,000	$1,035	$1,510	$1,070	$960	$860
Atlantic	1,000	....	910	800	800	575
Bay State	1,000	....	933	640	375	Failed.
Boott	1,000	930	1,090	850	750	455
Boston	750	600	845	500	525	500
Chicopee	1,000	650	990	500	300	135
Cocheco	650	500	530	500	445	430
Dwight	1,000	...	980	600	560	400
Essex	100	...	...	69	60	35
Great Falls	200	185	230	204	206	145
Hadley Falls	100	...	...	32	25	...
Hamilton	1,000	800	982	900	920	800
Jackson	800	885	850	415	*500	500
Laconia	1,000	...	1,028	700	660	535
Lawrence	1,000	800	1,150	865	870	650
Lawrence Machine	50	...	...	20	11	1
Lowell	1,000	795	1,000	†400	425	475
Lowell Bleachery	200	...	...	220	240	230
Lyman	100	...	...	66	76	45
Manchester Print Works.	1,000	...	900	750	650	750
Middlesex	1,000	1,030	1,250	540	500	137
Merrimac	1,000	1,000	1,375	1,200	1,220	1,175
Nashua	500	475	631	300	330	302
Pacific	1,000	...	...	770	350	173
Pepperell	500	...	...	515	542	520
Stark	1,000	980	1,000	762	800	700
Salmon Falls	500	...	550	370	345	225
Suffolk	1,000	1,050	1,250	752	825	650
Tremont	1,000	920	1,100	745	795	600
York	1,000	963	1,275	600	565	700

WEALTH OF THE MEXICAN MINES.

According to the official custom-house report the exports of the precious metals from the port of Vera Cruz for the first five months of the past year, were as follows, in round numbers :—

	Gold coin.	Silver coin.	Silver manuf.	Total value.
January	$55,870	$2,389,227	....	$2,444,597
February	17,007	366,775	$371	384,183
March	17,956	654,130	454	672,540
April	54,799	1,657,009	1,088	1,712,896
May	16,149	546,881	130	563,160
Total	$161,281	$5,614,003	$2,043	$5,777,326

As to the exports of the last two months we have at hand no means of ascertaining the exact amount. They were, however, undoubtedly large ; during the month of June larger, probably, than any other month of the year, certainly not less than $2,000,000. Adding this to the above we have a sum total for the ex-

* Par $1,000. † Average par $690.

ports from Vera Cruz alone, during the first half of the past year, of $7,777,327. Those from Tampico, Acapulco, Mazatlan, etc., would swell the amount to not less than $10,000,000.

In connection with this subject it would be curious to inquire what has been the amount of precious metals realized from the Mexican mines since their first discovery, or even since the conquest by the Spaniards, now going on three centuries and a half. It would be almost fabulous. For the period of 27 years, from 1825, when the present form of government was adopted, to 1851, during which time Senor Lerdo de Tejada has furnished us reliable statistics, the average annual exports were $9,481,042. We add his figures—the fluctuations were chiefly attributable to the unsettled political state of the country :—

1825.....	$8,702,441	1834.....	$8,062,213	1844.....	$11,661,296
1826.....	5,847,795	1835.....	12,705,471	1845.....	11,330,901
1827.....	9,669,428	1836.....	8,471,826	1846.....	9,687,829
1828.....	12,387,288	1837.....	4,459,745	1847.....	888,195
1829.....	12,022,312	1839.....	11,625,141	1848.....	10,994,738
1830.....	10,534,974	1840.....	6,402,185	1849.....	12,166,806
1831.....	7,280,808	1841.....	11,671,491	1850.....	8,608,081
1832.....	14,160,140	1842.....	8,511,556		
1833.....	13,537,759	1843.....	10,645,638	Total....	$237,026,061

Add the exports of the last seven years, estimated on the same average, and we have a sum total of more than $300,000,000 since the foundation of the Republic, now, alas! bankrupt.

But these, it will be borne in mind, are but the legally ascertained exports from the country alone, and but a small portion of the actual products of all the mines, which are set down by the best writers at upwards of thirty-five millions annually; and not unreasonably, when we consider the vast amount of unproductive wealth in the precious metals accumulated in the country. Assuming this as an average, the total product of the Mexican mines, since the conquest of Cortez, would amount to not less than $11,760,000,000, a sum in comparison with which any of the incredible stories told of the wealth of the ancient Aztecs seems probable.

MANUFACTURE OF THIMBLES.

Notwithstanding the facility with which the manufacture of these small but essential implements is carried on by means of molds in the stamping machine, few processes can compare, in ingenuity and effective adaptation, with the contrivance originated by MM. Ruoy and Berthier, of Paris. Sheet iron, one-twenty-fourth of an inch thick, is cut into strips of dimensions suited to the intended size of the thimbles. These strips are passed under a punch press, whereby they are cut into disks of about two inches diameter tugged together by a tail. Each strip contains one dozen of these blanks, and these are made red hot, and laid upon a mandrel nicely fitted to their size.

The workman now strikes the middle of each with a round-faced punch, about the thickness of his finger, and thus sinks it into the concavity of the first mandrel. It is then transferred successively to another mandrel, which has five hollows of successively increasing depth, and by striking it into them, it is brought to the proper shape. This rude thimble is then struck into the chuck of a lathe, in order to polish it within; it is then turned outside, the circles marked for the gold ornament, and the pits indented with a kind of milling tool. They are next

annealed, brightened, and gilded inside with a very thin cone of gold leaf, which is firmly united to the surface of the iron by the strong pressure of a smooth steel mandrel. A gold fillet is applied to the outside, in an annular space turned to receive it, being fixed by pressure at the edges, into a minute groove formed on the lathe.

STATISTICS OF AGRICULTURE, &c.

SEASONS FOR CROPS.

The successions of good and bad harvests present phenomena which have at times attracted the attention of scientific men, and from the time of the seven years of famine and seven years of plenty indicated by Joseph in his administration of Egypt, intelligent farmers have recognized the fact, that a course of deficient crops is pretty sure to follow a course of abundant ones, but in how far the succession is regular or of determinate length, appears not to have been definitely fixed. In 1855, M. Becquerel read to the Academy of Sciences a paper on the wheat culture of France, which has much interest in this relation. The internal system of tariffs in France—the want of agricultural enterprise and means of prompt communication—cause the prices to depend there upon the local crops almost altogether. Indeed, the tariff seems devised to enhance famine and increase abundance, since if one section of France has a short crop, it can import only at a high duty grain from sections where the crops are superabundant. The result is, however, that the aggregate prices vary with the production. In our number for January, 1854, we gave from the paper of M. Becquerel the following table quoted from Count Hugo, showing the movement in France for every five years :—

SEASONS AND PRICES IN FRANCE.

	Seasons.	Excess of imports. Hectolitres.	Exports.	Per hecto. f. c.	Per hecto. f. c.	Shillings, per qr. s. d.
Scarcity	1816 a 1821	6,247,000	.....	23 67	.....	54 6
Plenty	1822 a 1827	.....	1,258,000	.....	15 80	36 4
Scarcity	1828 a 1832	9,528,000	.....	22 00	.....	50 7
Plenty	1833 a 1837	.....	944,000	.....	16 16	37 2
Mixed	1838 a 1842	1,126,000	.....	20 31	.....	46 8
Scarcity	1843 a 1847	18,697,000	.....	25 68	.....	59 0
Plenty	1848 a 1852	... .	13,188,000	.....	16 68	38 4

This is a very remarkable table, and we before remarked upon it :—

"The five years, 1847 to 1852, were years of abundance both in France and Great Britain. Supposing, then, the change takes place quinquennially, we should now be at the commencement of a period of scarcity, and that the present year fulfills this character, is manifest from the state of the markets on both sides of the British channel."

Let us now add the line embraced in the five years since elapsed, 1853 to 1857, from official sources as follows :—

	Seasons.	Hectolitres.	Per hecto.	Per qr.
Scarcity	1853 a 1857	22,099,792	28 01	64 1

These figures for the last five years show that scarcity has been greater than ever in France, and that the cycle fulfilled its limit. We may observe the leading events which have marked the close of each of these cycles in France. The

first period of scarcity, ending in 1821, was complicated with the settlement of France after the fall of the empire, and was marked by the Spanish war. The cycle of low prices, plenty having imparted courage to government, ended with the battle of Navarino in 1827. The dear cycle that succeeded ended in the revolution and crisis. When the restoration fell, and Louis Philippe succeeded, a season of plenty followed, ending in the United States revulsion of 1837. There was no marked failure up to 1842, but food rose, producing uneasiness; when the famine cycle followed, ending with the revolution of 1848. Plenty succeeded, and the cycle closed with the establishment of the "Empire." An adverse cycle has now passed, ending with a "crisis." We are now again at the commencement of a season of plenty, without political changes in Europe. The question here is for American interests. The want of food abroad has always caused an active demand for American products. If we take a table of the value of breadstuffs and provisions exported from the United States, according to the above cycles, the results are as follows:—

Cycle.	Prices in France. s.	d.	End of cycle.	Exports food from United States.
1822 a 1827	36	4	Plenty—Navarino	$63,450,432
1828 a 1832	50	7	Scarcity—Revolution	66,631,362
1833 a 1837	37	2	Plenty—Crisis	57,945,040
1838 a 1842	46	8	Mixed—Crisis	76,950,942
1843 a 1847	59	0	Scarcity—Revolution	143,320,721
1848 a 1852	38	4	Plenty—Empire	149,486,009
1853 a 1857	60	1	Scarcity—Crisis	290,078,926

The crisis of 1842 produced the quintuple treaty, and the fall of M. Thiers. In the last cycle the exports from the United States would have been much larger but for the short crop of 1854, which sent prices to an exorbitant level, and stopped the exports of 1855. The following table gives the quantities of grain sent from the United States to France in each year of the last cycle, also the aggregate exports, and average export prices of flour in each year:—

EXPORTS FROM UNITED STATES.

	Wheat. To France.	Wheat. To all countries.	Flour. To France.	Flour. To all countries.	Corn. To France.	Corn. To all countries.	Price flour in U. S.
1852...bush.	....	2,694,540	2,700	2,799,733	....	2,627,075	$4 24
1853.....	6,100	3,890,141	8,784	2,920,918	100	2,274,909	5 60
1854.....	1,041,086	8,036,665	728,279	4,022,383	39,400	7,768,816	7 88
1855.....	.....	798,884	8,557	1,024,540	302,740	7,807,383	10 12
1856.....	1,923,732	8,154,877	3,948,499	3,510,626	50,082	10,292,280	8 30
1857.....	1,527,128	14,570,331	184,803	3,712,053	207,580	7,505,318	7 00
1858—8 mos.	201,101	4,073,234	171,101	1,511,101	11,681	2,948,101	4 50

The highest point of flour here was in 1855, when the supply was not equal to the home demand, heightened by railroads and emigration, and the exportation was cut off. In that year, however, France took more corn than ever. This fact has begun to attract attention there, and may become very important. It has been generally supposed in France, as formerly in England, that there are countries other than France so prolific in grain, that if it were not for the corn laws they would so overwhelm the country with wheat at low prices, as to compel the abandonment of the culture there. The experience of the past few years, when stern necessity has compelled the removal of duties, has excited other fears, since it has demonstrated that when the crops are very short, there is great difficulty of getting a sufficient supply at any price. In 1855, wheat was at 75s.

per quarter in England, and 70s. in France, yet the United States, which had been looked to for an inexhaustible supply, was unable to furnish any, even at these exorbitant rates. The capacity of Russia, it is now ascertained, is very much overrated, and the supplies of the basin of the Baltic are annually growing less. At this point, intelligent French inquire what can America furnish? The response is, that corn is an inexhaustible and indispensable crop. It furnishes a large portion of the food for man and beast in the Union, and was the mainstay of Ireland in the famine of 1847. The grain is already largely used in the southern and southwestern departments. Introduced in the northern departments, and a steady market opened, the United States could supply 80,000,000 bushels per annum at low prices. If it served no other purpose than as food for animals, it would relieve the pressure in times of scarcity very materially, and greatly promote the extension of French trade.

The import, export, and prices of wheat in France for each of the five years embraced in the cycle ending with 1857 were as follows:—

	Import.	Export.	Ave. per hecto. £ s.
1852.....	251,064	2,043,700	17 23
1853.....	3,850,255	3,188,701	22 39
1854.	4,743,247	285,738	28 82
1855.....	3,041,258	208,064	29 32
1856.....	7,197,483	193,042	32 46
1857.....	4,231,953	355,750	27 09
Total, hectolitres.....	23,315,653	7,099,991	28 01
Do. in bush.....	64,442,092	19,524,977	$1 90

Thus France purchased over 44 million bushels wheat at 114 million of dollars, a sum which she, in all probability, will save during the present cycle.

The idea of the capabilities of the United States to supply food, has been drawn from the great quantity of lands, and of emigrants who go on to them. It is not, however, sufficiently borne in mind, that the surplus which those occupiers can raise is very small for want of assistance. Labor is not to be had, and the unaided industry of the farmer enables him now only to supply his own wants. It is only to the machinery introduced that we are indebted for any surplus. Every farmer must raise corn, because it is indispensable food for man and cattle, and a little labor will procure a great deal. It is also most easily harvested. It can, therefore, be supplied cheaper and more abundantly than most other articles. Since corn was introduced into Great Britain in 1846, she has not ceased to be a large customer, annually taking a larger quantity.

We have now before us clearly a "cycle" of cheap food, when the demands of Europe will be less, and it is to be expected that the exports will fall off. It is to be borne in mind, however, that the great elements of internal consumption have ceased, viz., railroad expenditure, and migration, while, on the other hand, great tracts of land have been settled, and enjoy cheap avenues to market. A larger surplus at lower prices may therefore tempt purchasers from Europe, and still serve to equalize prices.

LIVE STOCK IN ILLINOIS.

The State census of Illinois gives the following number of cattle:—

Horses.....	253,838	Neat cattle.....	1,186,908
Sheep.....	649,872	Mules and asses.....	28,682
Swine.....	1,876,296		

AGRICULTURE OF MASSACHUSETTS.

The agricultural products of Massachusetts, according to the State census of 1855, was as follows :—

Counties.	Corn.	Wheat.	Rye.	Barley.	Oats.	Bushels of potatoes.
Barnstable....	70,480	526	17,301	1,935	7,380	66,337
Berkshire	298,072	8,721	70,483	9,735	289,515	435,380
Bristol.....	210,236	479	22,587	3,168	49,056	212,808
Dukes.....	16,023	0	1,379	34	3,024	11,526
Essex.....	186,031	1,260	16,192	18,139	28,022	294,376
Franklin	253,616	8,030	57,551	6,607	79,547	257,211
Hampden.....	220,412	1,495	102,272	924	78,744	309,648
Hampshire....	291,189	5,558	83,985	3,288	64,516	318,756
Middlesex....	331,934	2,613	46,823	8,217	76,672	560,373
Nantucket....	7,980	25	117	552	1,254	7,776
Norfolk.....	150,465	172	15,872	6,943	12,782	281,586
Plymouth.....	139,611	510	13,497	2,048	19,383	221,905
Suffolk.....	3,256	30	2,160	529	0	8,910
Worcester....	585,565	9,754	51,577	27,800	268,110	900,911
Total.....	2,759,870	39,273	501,796	89,919	978,005	3,887,303
" 1845..	1,985,215	47,986	446,925	121,931	1,238,159	4,700,005

Counties.	Acres of millet.	Tons of hay.	Pounds of butter.	Pounds of cheese.	Pounds of honey.	Pounds of beeswax.
Barnstable....	0	13,833	194,327	1,325	0	0
Berkshire.....	0	81,190	1,262,845	2,658,192	23,083	509
Bristol.....	107	36,004	303,353	79,633	5,477	165
Dukes.....	0	2,821	28,382	3,987	0	0
Essex.....	10	57,940	533,853	80,063	3,223	39
Franklin.....	4	49,349	884,307	233,337	4,039	99
Hampden.....	31	45,924	729,637	381,721	7,900	169
Hampshire....	14	48,197	931,295	336,015	5,937	209
Middlesex.....	72	89,526	838,748	72,695	5,889	87
Nantucket.....	0	2,851	24,152	0	0	0
Norfolk.....	27	42,621	316,254	42,277	5,073	543
Plymouth	2	33,347	399,878	82,501	5,046	350
Suffolk.....	0	2,219	500	0	100	0
Worcester.....	33	162,309	1,637,978	1,791,030	7,910	153
Total.....	303	668,131	8,116,009	5,762,776	73,677	2,324
" 1845...	1,339	603,482	7,688,556	7,262,637	92,055	3,118

For 1845, the returns are made so many bushels of the several kinds of grain to a county; in 1855, so many bushels per acre, thus showing a want of uniformity, which is exceedingly desirable in a series of statistical returns. There would probably be a difference between the returns made by the same county, whether the estimate be made in the aggregate, or by the acre, the latter, most likely, giving a greater amount than the former.

According to the returns, the number of bushels of corn in 1855, exceeded that of 1845, 774,655; wheat decreased 8,713 bushels; rye increased 54,871 bushels; barley decreased 32,012 bushels; oats decreased 260,154 bushels. Corn and rye show an increase, while all the other grains show a falling off. In 1845, 32,274 bushels of buckwheat were returned. In 1855, none.

The falling off of the potato crop from 1845 to 1855, 880,812 bushels; tons of millet in 1845, 1,339; in 1855, 303 acres, thus showing again a want of uniformity; tons of hay, increase, 64,649; pounds of flax in 1845, 5,896; in 1855, none.

Increase of butter in 1855, over that returned in 1845, 427,453 pounds; de-

crease of cheese, 1,499,861 pounds; increase of honey, 18,378 pounds; decrease of beeswax, 794 pounds. This shows an increase of butter and honey, but a great falling off of cheese.

Milk, increase over 1845, 450,504 gallons; decrease of maple sugar, 53,607 pounds; increase in value of poultry and eggs, $26,797; increase of broom-seed and brush, $155,511.

VALUE OF AGRICULTURAL PRODUCTS.

The Hon. N. P. Banks, of Massachusetts, in a recent address remarked:—

In Holland, in 1841, the product of agricultural industry was $181,000,000; that of manufacturing industry, $144,000,000; and the estimated products of commerce, $65,000,000; thus of $390,000,000, commercial industry gave but little more than a sixth part, while manufactures and mechanics afforded 37 per cent of the entire wealth of the State. In France, in the same year, the product of agriculture was $800,000,000; manufactures, $400,000,000; commerce and navigation, $268,000,000. Of an industrial product of $1,466,000,000, that of commerce is but 18 per cent, while the mechanic arts furnish a third of the amount. The industrial product of England in 1840, was $630,000,000, and of all other pursuits, $855,000,000. Allowing to commerce a fifth of the aggregate, as in the case of Holland or France, or even a quarter part, it is still far below that of manufactures and the mechanic arts.

GRAIN TRADE.

The question of a market for grain is that which is now of great interest to the country at large, chiefly because agricultural products are in great abundance, and on the ability to sell them hangs the power of collecting debts, selling new goods, and restoring railroad revenues. The purchases of grain in England have been small for the past, as compared with the previous, year, and at falling prices. The year commenced at a price of 60s. in England, general average, against 80s. per quarter in January, 1856. The price, as usual, continued to decline until May, when it again advanced to 62s. at the close of July, when a good harvest became pretty certain, accompanied by a loss of the potato crop. The effect of that seems to have been to press the market with potatoes, causing falling rates for food during a severe money panic, and discharge of factory hands. The price of wheat fell from 62s. 5d. to 49s. 3d., at the close of December, 1857. The sales of wheat weekly at the towns which regulate the prices in England, and the weekly imports into England, with the average prices each week for three years, are given in an annexed table, compiled from official reports; the prices are the six weeks' averages. The actual average price of wheat in England for the last week in 1857 was 47s. 7d. The whole quantities of British wheat sold were rather more than for the previous year, although at much lower prices, a fact corroborating the estimates of better crops. The quantities were also less than last year, and the proportion derived from the United States was also less than half that of the previous year. At this season prices continue uniformly to decline, because the threshing out is more active and the supplies greater. This operation the money pressure of the present year is likely to assist; but the failure of the potato crop is of a nature to cause the supply of food from May to harvest to be shorter than usual, and consequently the demand for that of foreign growth more considerable. The United States were never in a better condition to supply food than in the present year, not only by reason of its abundance, but of the abundant means of transportation—internal and ex-

ternal. There is, therefore, no reason to doubt but that at least the usual market for food will be found abroad :—

WEEKLY IMPORT AND SALES OF WHEAT IN GREAT BRITAIN FOR THREE YEARS.

	1855.			1856.			1857.		
Weeks.	Wheat imported. Qrs.	Wheat sold. Qrs.	Price. s. d.	Wheat imported Qrs.	Wheat sold. Qrs.	Price. s. d.	Wheat imported. Qrs.	Wheat sold. Qrs.	Price. s. d.
Jan. 4.	39,133	90,641	73 04	88,002	89,604	79 06	100,749	85,768	60 02
11.	46,552	99,928	73 03	.....	88,649	78 05	106,832	92,519	59 08
18.	37,789	77,711	78 01	23,945	101,406	77 06	105,620	103,358	59 05
25.	63,771	64,202	72 08	45,240	111,243	77 00	78,389	108,532	59 02
Feb. 1.	90,202	93,879	72 05	57,244	80,398	76 06	69,691	104,611	58 09
8.	36,460	91,223	72 00	30,407	88,686	75 11	37,036	91,420	58 03
15.	10,372	85,873	70 03	62,018	87,591	75 01	49,552	100,932	58 00
22.	7,224	94,612	70 06	53,124	90,365	73 11	26,193	108,890	57 06
Mar. 1.	15,204	89,402	69 11	39,887	112,949	72 09	29,131	108,805	56 10
8.	52,721	92,079	69 08	38,888	102,894	71 07	26,570	112,007	56 03
15.	10,275	80,337	66 11	40,952	68,661	70 04	35,830	109,123	55 10
22.	15,571	82,905	68 02	31,515	77,410	69 03	35,651	106,868	55 09
29.	14,252	100,301	67 11	73,927	98,307	68 00	27,848	98,284	55 07
April 5.	15,875	98,982	68 05	50,077	88,099	69 00	39,636	85,665	55 05
12.	23,530	96,342	68 04	103,887	93,772	68 10	45,284	93,845	55 02
19.	26,839	98,446	68 08	78,118	114,384	68 08	30,565	84,689	54 09
26.	31,250	92,190	68 02	49,205	97,938	68 08	37,874	98,343	54 04
May 3.	29,978	102,082	69 05	58,853	101,850	68 07	28,296	109,809	54 01
10.	66,328	96,727	69 05	62,328	119,673	68 02	21,739	114,930	54 02
17.	73,607	97,879	70 08	45,117	126,236	68 01	28,181	110,811	54 07
24.	95,138	110,379	76 10	70,016	112,285	68 02	73,217	112,302	55 02
31.	93,689	108,928	73 07	36,891	100,580	68 00	44,042	119,039	56 00
June 7.	81,885	89,297	75 01	47,651	100,683	68 00	77,036	128,552	56 11
14.	67,373	87,314	76 05	63,489	104,901	68 03	54,925	115,102	57 11
21.	59,935	68,925	77 00	59,209	105,378	68 08	38,508	102,780	58 07
28.	76,090	84,791	75 11	89,411	93,654	69 03	45,378	120,368	59 03
July 5.	60,851	88,195	77 02	44,776	91,314	70 02	36,966	83,096	60 08
12.	52,104	85,365	76 10	60,596	70,243	71 06	52,405	81,764	61 08
19.	91,156	95,103	76 04	134,214	75,360	72 11	57,659	75,992	62 01
26.	86,174	109,891	76 05	181,958	90,623	74 06	67,341	74,017	62 06
Aug. 2.	72,795	99,758	76 08	120,641	81,072	74 07	60,848	64,567	62 05
9.	70,524	84,584	76 11	100,523	60,404	75 07	42,479	79,912	62 00
16.	45,101	75,681	76 11	122,177	44,802	75 04	59,023	78,060	61 03
23.	28,575	71,104	76 06	178,000	40,895	74 04	61,631	81,149	60 07
30.	40,783	72,088	75 11	113,439	65,785	74 03	52,855	92,646	60 01
Sept. 6.	39,742	79,282	74 10	145,044	80,300	72 11	62,955	105,841	59 04
13.	38,490	97,377	75 02	147,811	90,282	71 06	51,925	118,385	58 08
20.	20,838	124,510	75 02	107,445	106,313	69 07	43,426	135,244	58 04
27.	18,902	146,137	75 05	75,160	128,906	68 06	54,063	127,412	58 01
Oct. 4.	19,796	155,921	75 11	112,533	132,996	67 10	53,393	125,691	57 06
11.	28,331	152,443	76 07	94,979	144,135	64 10	28,734	124,295	56 08
18.	24,879	144,869	76 10	85,390	137,286	65 07	150,000	122,132	56 04
25.	37,423	141,208	77 02	108,199	116,277	65 01	157,929	103,644	56 03
Nov. 1.	36,406	224,463	77 08	82,109	103,404	65 04	79,942	102,058	55 10
8.	12,912	118,730	78 02	80,102	108,180	65 06	133,579	91,219	55 00
15.	107,246	126,465	78 04	102,901	109,942	65 05	84,682	91,010	54 02
22.	36,409	134,952	79 10	97,848	97,983	65 02	135,003	94,988	52 06
29.	30,175	117,405	80 10	85,936	109,106	64 06	68,832	76,725	52 05
Dec. 6.	40,196	114,853	81 04	132,388	99,673	63 07	104,356	84,923	51 03
13.	70,170	112,716	81 04	104,574	107,808	62 08	115,381	100,416	50 06
20.	.....	108,115	81 00	137,887	108,645	61 10	140,993	101,379	49 11
27.	42,782	96,964	80 05	120,987	92,296	61 05	99,295	95,634	49 03

Years.	Wheat imported. Qrs.	Wheat sold. Qrs.	Average price. s. d.
1855	3,211,786	5,245,000	.. ..
1856	4,104,045	5,046,736	70 06
1857	3,449,048	5,343,629	.. ..

AGRICULTURAL STATE FAIRS.

Agricultural State Fairs are to be held this year as follows:—

California, at Maysville, August 23d to 28th.
Missouri, at St. Louis, September 6th to 10th.
Illinois, at Centralia, September 14th to 18th.
Vermont, at Burlington, September 14th to 17th.
Ohio, at Sandusky, September 14th to 17th.
New Jersey, at Trenton, September 15th to 17th.
Rhode Island, at Providence, September 15th to 18th.
Kentucky, at Louisville, September 27th to October 1st.
Iowa, at Oskaloosa, September 28th to October 1st.
Pennsylvania, at Pittsburg, September 28th to October 1st.
Indiana, at Indianapolis, October 4th to 9th.
Wisconsin, at Madison, October 4th to 7th.
New Hampshire, at Dover, Octo er 6th to 8th.
New York, at Syracuse, October 5th to 8th.
Connecticut, at Hartford, October 12th to 15th.
United States, at Richmond, Virginia, October 25th to 30th.

STATISTICS OF POPULATION, &c.

POPULATION OF NEW YORK.

The population of the city of New York has been by wards as follows:—

Wards.	1830.	1835.	1840.	1845.	1850.	1855.
1.....	11,331	10,380	10,629	12,230	19,755	13,486
2.....	8,203	7,549	6,394	6,962	6,616	8,249
3.....	9,599	10,884	11,581	11,900	10,356	7,909
4.....	12,705	15,439	15,770	21,000	23,250	22,895
5.....	17,722	18,495	19,159	20,362	22,691	21,617
6.....	13,570	16,827	17,198	19,348	24,699	25,562
7.....	15,873	21,481	22,982	25,556	32,697	34,422
8.....	20,729	28,570	29,073	30,900	34,413	34,452
9.....	22,810	20,618	24,795	30,907	40,675	39,982
10.....	16,488	20,926	29,026	20,993	23,316	26,378
11.....	14,915	26,845	17,052	27,259	43,772	52,970
12.....	11,808	24,487	11,658	13,378	10,453	17,656
13.....	12,598	17,130	18,517	22,411	28,244	26,597
14.....	14,288	17,306	20,235	21,103	25,206	24,740
15.....	.....	13,202	17,765	19,422	22,564	24,046
16.....	.....	.....	22,273	40,350	52,887	39,828
17.....	.....	.....	18,619	27,147	43,280	59,548
18.....	.....	.....	.....	.....	31,557	39,415
19.....	.....	.....	.....	.....	18,467	17,866
20.....	.....	.....	.....	.....	.....	47,055
21.....	.....	.....	.....	.....	.....	27,914
22.....	.....	.....	.....	.....	.....	22,605
Total	202,589	270,089	312,710	371,223	515,394	629,810
Immigration ..	.....	.....	227,552	306,387	790,490	1,210,302

The large immigration has gone far towards swelling the numbers in the upper wards. The 11th and 17th wards hold 34,000 Germans, or one-third of the Germans in the city. The 17th also holds the largest number of Irish. The 16th, 17th, and 18th wards hold 40,000 Irish. The increase in the city bears, however, a very small proportion to the numbers who have arrived. These have, however, increased faster than the property, taking all the facts into consideration.

POPULATION OF MINNESOTA.

The Marshal of Minnesota has recently completed the census of that State. The following table exhibits the population of each county in the State, the number of square miles contained in it, and the number of dwellings in each county of the State:—

Counties.	Inhabitants.	Square miles.	Dwellings.	Counties.	Inhabitants.	Square miles.	Dwellings.
Houston	5,264	576	988	Wright	2,243	724	504
Winona	8,203	540	1,608	Sherburne	506	444	99
Dodge	3,680	432	432	Benton	688	522	156
Mower	2,856	708	538	Stearns	2,840	1,139	724
Freeborn	2,486	720	578	Meeker	1,025	720	200
Farribault	689	720	137	Morrison	751	644	120
Waseca	2,866	432	438	Manomin	514	18	67
Steele	2,597	432	463	Washington	6,183	400	1,039
Blue Earth	3,629	750	599	Chisago	1,765	354	542
Wabashaw	5,109	659	918	Pine	102	1,160	21
Goodhue	6,952	864	1,290	St. Louis	1,560	6,300	810
Rice	6,440	516	1,179	Isanti	184	528	76
Le Seuer	3,610	468	893	Pierce	493	1,700	316
Nicollet	3,437	430	683	Cass	195	3,600	32
Brown	1,629	960	430	Crow Wing	176	558	32
Sibley	4,147	600	1,035	Todd	86	1,900	21
Scott	5,302	360	1,401	Buchanan	120	890	62
Carver	3,117	378	736	Carlton	239	892	133
Renville	245	260	68	Lake	1,212	4,050	260
McLeod	822	720	214	Itasca	630	5,400	260
Dakotah	8,158	575	1,667	Cottonwood	173	720	52
Ramsey	12,747	122	3,311	Murray	91	720	16
Hennepin	13,065	593	2,286	Nobles	16	820	6
Fillmore	9,893	864	1,822	Rock	52	720	17
Pembina*	1,909	21,678	77	Jackson	50	720	17
Olmsted	8,458	648	1,714	Martin	56	720	19
Mille Lac	....	1,540	....	Pipe Stone	24	864	5
Anoka	1,559	426	321				
Total					153,332	75,465	31,730

The first census of Minnesota was taken on the 30th June, 1849, and exhibited the following result:—

Counties.	Males.	Females.	Counties.	Males.	Females
Ramsey	976	564	Itasca	21	9
Washington	821	291	Mankato	..	..
Benton	249	108			
Dakotah	301	167	Total	3,253	1,687
Wahnatah	344	182	Add females	1,687	
Wabashaw	246	84			
Pembina	295	342	Total population	4,940	

MIXED RACES IN SPANISH AMERICA—THE BEAUTIES OF AMALGAMATION.

Dr. TSCHUDI, a distinguished German naturalist, has recently published his "Travels in Peru," a work of great interest and value, in which, among other matters of curious information, he gives a list of the crosses resulting from the intermixture of the Spanish with the Indian and negro races in that country. As the same effect in Mexico, it may gratify some of our readers to see this list, so that they may judge of the quality of the fellow-citizens they will have if the present policy of some people is persisted in and carried out. The settlement of

* The population of Pembina County, and the figures in the table, are merely the estimates of the marshal.

Mexico by the Spaniards took place at the same time, and the intermixture of races has been perhaps greater in that country than in Peru. The Mexican soldiers are said to present the most unequal characters that can be met with anywhere in the world. Some are brave, and many others quite the reverse, and possessing the basest and most barbarous qualities. This, doubtless, is the result in part of the crossings of the races.

The following is Tschudi's list of the crossing in Peru :—

White father and negro mother.....Mulatto.
White father and Indian mother.....Mestizo.
Indian father and negro mother.....Chino.
White father and mulatto mother.....Cuarteron.
White father and chino mother.....Chino-blanco.
White father and cuarterena mother.....Quintero.
White father and quintero mother.....White.
Negro father and Indian mother.....Zambo.
Negro father and mulatto mother.....Zambo-negro.
Negro father and mestizo mother.....Mulatto-oscura.
Negro father and chino mother.....Zambo-chino.
Negro father and zambo mother .....Zambo-negro, perfectly black.
Negro father and quintero mother .....Mulatto, rather dark.
Indian father and mulatto mother.....Chino-oscura.
Indian father and mestizo mother.....Mestizo-claro, frequently very beautiful.
Indian father and chino mother.....Chino-oscura.
Indian father and zambo mother.....Zambo-claro.
Indian father and chino-cholar mother .....Indian, with frizzly hair.
Indian father and quintero mother.....Mestizo, rather brown.
Mulatto father and zambo mother.....Zambo, a miserable race.
Mulatto father and mestizo mother.....Chino, rather clear complexion.
Mulatto father and chino mother.....Chino, rather dark.

The effect of such intermixture upon the character is thus stated by Dr. Tschudi :—"To define their characteristics correctly would be impossible, for their minds partake of the mixture of their blood. As a general rule, it may be fairly said that they unite in themselves all the faults, without any of the virtues, of their progenitors; as men they are generally inferior to the pure races, and as members of society they are the worst class of citizens.

POPULATION OF PARIS.

In reply to a correspondent, we may state that before 1817 the returns of Parisian population are not very exact, since what is known of them does not suffice to fix the data comprised in the numbers given. Nevertheless, the official returns are as follows :—

CENSUSES OF PARIS.

1789	524,186	1817	713,966	1850	1,034,196
1801	546,856	1836	882,262	1851	996,067
1806	580,609	1841	912,033	1855	1,151,978
1811	622,636	1846	1,029,582	1857	1,246,767

From 1789 to 1800, the population of Paris increased very slowly. The political troubles caused great numbers to emigrate, but they also drew numbers to Paris from the provinces. From 1801 to 1806, under the government of Bonaparte, a considerable increase took place, and continued up to 1817 apparently. The last epoch was that of the Moscow defeat, the two invasions of Paris, and the call for 300,000 conscripts, all of which affected the census. The next census, that of 1836, was carefully taken, and the increase of numbers

shows the progress of peace. From 1836 to 1841, was a period of great depression all over the world. In the following five years the increase was very large. The period from 1846 to 1851, was of famine and distress, and the decrease in the population was corroberated by the diminution in marriages and births, and by an increase in deaths. The first decreased for the first time since 1800—334 in the year; the births decreased 2,441; and the deaths increased 5,937, in the period over the previous similar period. From 1851 to 1857, an immense increase took place in the population of Paris. The whole increase for France took place there. The effects of imperial government, developing business and speculation, drew numbers from the rural districts to the metropolis. A great dearness of rents and food marked this concentration, and aided in producing the crisis there. Large crops have now once more reduced prices, and ameliorated the condition of the city population.

The population of Paris in 1855, compared with London, New York, and Boston, was as follows:—

Years.	London.	Paris.	New York.	Boston.
1850.....	2,362,236	1,034,196	515,547	136,884
1855.....	2,421,111	1,151,978	629,810	161,429
Increase	58,875	117,782	114,263	24,545

WHERE DO THE EMIGRANTS SETTLE?

The following table shows the avowed destination of the emigrants landing at Castle Garden, New York, during the year 1857. It will be seen that nearly one-half of the emigrants remained in the State of New York, while Pennsylvania, Illinois, Wisconsin, and Ohio, received respectively the next higher numbers. The bulk of the emigrants have gone into the Western States, comparatively few having gone East, (and of these Massachusetts received the largest part,) and scarcely any South:—

Destination.	Passengers.	Destination.	Passengers.
Maine.....	186	Alabama	21
New Hampshire.....	179	Louisiana.....	206
Vermont	297	Texas	55
Massachusetts	6,904	Arkansas.....	9
Rhode Island	1,389	Missouri.....	2,366
Connecticut	2,974	Mississippi.....	62
New York.....	78,585	Tennessee	127
New Jersey.....	3,800	Kentucky.....	660
Pennsylvania	16,660	District of Columbia	532
Ohio.....	10,054	Kansas Territory	25
Indiana	2,474	Nebraska Territory	27
Illinois.....	15,750	New Mexico Territory.....	5
Michigan.....	4,108	Utah Territory.....	14
Wisconsin	12,704	Oregon Territory.....	7
Iowa.....	3,775	Canada West	9,673
California.....	877	New Brunswick	97
Minnesota.....	1,253	Nova Scotia.....	42
Delaware.....	113	Mexico.....	1
Maryland.....	1,535	South America.....	18
Virginia.....	702	Cuba	25
North Carolina.....	41	Uncertain	2,014
South Carolina.....	157	Unknown.....	4,395
Georgia	167		
Florida.....	5	Total.....	185,186

SERFDOM IN RUSSIA.

A report lately presented to the Emperor Alexander contains the following statistical returns relative to the landed property and serfs in Russia:—The number of families who are landowners amounts to 127,000. Out of these, 2,000 possess from 1,000 to 10,000 serfs; 2,000 from 500 to 1,000; 18,000 from 100 to 500; 30,000 from 21 to 100; and 75,000 have less than 21. The total number of peasant serfs of the nobility amounts to 11,750,000, and those of the crown to 9,000,000. There are, therefore, 20,750,000 persons anxiously waiting for emancipation.

MERCANTILE MISCELLANIES.

EDUCATION A SOURCE OF WEALTH.

How is a nation to grow rich and powerful? Every one will answer—by cultivating and making productive what nature has given them. So long as their lands remain uncultivated, no matter how rich by nature, they are still no source of wealth; but when they bestow labor upon them, and begin to plow and sow the fertile earth, they then become a source of profit. Now is it not precisely the same case with the natural powers of the mind? So long as they remain uncultivated, are they not valueless? Nature gives, it is true, to the mind talent, but she does not give learning or skill—just as she gives to the soil fertility, but not wheat or corn. In both cases the labor of man must make them productive. Now, this labor, applied to the mind, is what we call education; a word derived from the Latin, which means educing or bringing forth the hidden powers of that to which it is applied. In the same sense, also, when we use the word cultivation, we say, "cultivate the mind," just as we say, cultivate the soil.

From all this, we conclude that a nation has two natural sources of wealth, one the soil of the nation, and the other the mind of the nation. So long as these remain uncultivated, they add little or nothing to wealth or power. Agriculture makes one productive, education the other. Brought under cultivation, the soil brings forth wheat and corn, and good grass, while the weeds and briars and poisonous plants are all rooted out; so mind, brought under cultivation, brings forth skill, and learning, and sound knowledge, and good principles; while ignorance and prejudice, and bad passions, and evil habits, which are the weeds, and briars, and poisonous plants of the mind, are rooted out and destroyed.

An ignorant man, therefore, adds little or nothing to the wealth of a country; an educated man adds a great deal. An ignorant man is worth little in the market; his wages are low, because he has got no knowledge or skill to sell. Thus, in a common factory, a skillful workman may get $10 or $15 a week, while an unskillful workman must be contented with $2 or $3. In the store or counting-house, one clerk gets $1,000 salary because he understands book-keeping or the value of goods; while another, who is ignorant, gets nothing but his board. * * * We see this difference, too, when we look at nations. Thus, China has ten times as many inhabitants as England, but England has an hundred times as much skill; therefore, England is the more powerful of the two, and frightens the government of China by a single ship of war.

Thus, too, among the nations of Europe, Prussia is more powerful and prosperous than any other of the same size on the continent, because all her people are educated, and that education is a Christian one, making them moral and industrious as well as skillful. If, then, the education of the people be necessary to the prosperity of the nation, it is the duty of the government or nation to provide for it; that is, to see that no child grows up in ignorance or vice, because that is wasting the productive capital of the country. This education, too, should be a Christian education, in order that children when they grow up should be honest, faithful, and temperate; for if a man be a liar or a drunkard, his knowledge and skill is worth little to his country, because he will be neither trusted nor employed.

None know the value of education but those who have received it. It is therefore the duty of every child who has been well educated himself, to use his influence, when he grows up, to extend it to others; and if he be a legislator, to make it national and universal in his country.

PRICES IN 1857.

At a recent meeting of the Statistical Society, London, Mr. Newmarch read a paper "on the history of prices in 1857." The author commenced by observing that his object was to trace the causes of the recent commercial derangement, which was greater than any on record, bearing a remarkable similarity to that of 1792. The peculiarity of the recent crisis was, that it had not been preceded by any of those events which had produced the other commercial panics of the present century. There had been no bad harvest, but, on the contrary, a very good one; there was no great dearth of commodities used in manufacture: there was no drain on the bank; and no political disturbance to derange public credit; yet all at once the fabric of seeming prosperity, which had been built upon borrowed capital, fell to the ground. For the complete illustration of the subject Mr. Newmarch referred to the prices of the different articles used as food and in manufactures during the last seven years; and he exhibited a large diagram on which the prices were marked in tabular form, as compared with the year 1855, which he placed at par. The author said that the years 1848–49 had been cheap years; and 1851, with which the table commenced, was also remarkable for low prices. In 1852 and 1853 the effect of the gold discoveries began to operate on prices, which rose considerably in 1853. For the closing months of 1853 the prospect of war with Russia tended to increase prices; and through the two following years there was a general tendency to advance. At the commencement of 1857 there was generally a range of high prices, with strong indications of their rising higher. This state of things strengthened commercial credit, and those who had goods to sell were more readily enabled to increase their borrowed capital, and were tempted to embark in speculation; but when autumn came there was a sudden blow given to the trading on borrowed capital, firms fell, credit could no longer be obtained, and then the false system of trade, which had been carried on for five or six years, without capital to support it, fell to the ground.

The table showed that in the middle of last year there had been a great rise in the prices of most commodities; but that in the course of seven years, after many fluctuations, generally with an advancing tendency, prices have settled down at the present time to even a lower scale than in 1851. During the lapse of seven years, in which these fluctuations in prices had occurred, the quantity of gold and silver that had been introduced into the commercial world amounted to £200,000,000, which was an increase of 40 per cent on the total quantity of gold in the commercial world in 1848. The introduction of such a large amount of gold, it might have been supposed, would have produced a permanent effect in raising prices, and yet the fact is otherwise. That, the author said, was his

first proposition. His second was, that the cause of the fall in the range of prices, in opposition to the natural effect of so large an influx of gold, is to be accounted for by the operations of capital and credit. He then alluded to the facilities given to adventurers for carrying on their speculations, by the readiness with which they obtained discounts, as a cause of the recent panic. The alleged fluctuations in the circulation of bank notes, which had been assumed as one of the disturbing causes, was shown to be fallacious by reference to the average circulation during the last seven years, which exhibited remarkable steadiness. Exclusive of Ireland, the note circulation of 1851 amounted to 29.8 millions; in 1854, to 31.7 millions; from which time the amount has scarcely varied. The rates of discount, however, during the seven years exhibited great changes. In 1851, the average rate was £2 15 per cent; in 1855, £5 per cent; in 1856, £6 per cent; in January, 1857, £6 10s. per cent; in December £8 per cent. The cause of the late commercial crisis, Mr. Newmarch said, was to be found in these variations in the rate of discount. So long as adventurers could get their bills discounted all went well; but when prices were falling difficulties arose in the process of accommodation, and then the system of false trading came to an end. Why it had continued so long he attributed to the gold discoveries in Australia, which had given so great a stimulus to speculation, and had enabled adventurers to carry on the process of borrowing in spite of the war and other discouraging influences. Mr. Newmarch noticed the opinion expressed by some political economists, that the gold discoveries of Australia did not add to the wealth of the world, from which opinion he entirely dissented; for the influx of gold had given a stimulus to enterprise, had promoted invention, and fostered improvements, which had been the means of greatly adding to the stock of wealth. Alluding to America, and to the opinion that the crisis there had been occasioned by the excess of note circulation, the author said that it appeared from documents that could be relied on that the circulation of the banks at New York had not varied more than the banks of this country, and that the notes issued bore but a small proportion to the deposits and investments. Looking to the future, Mr. Newmarch expressed the opinion that the arrival of gold from Australia would continue to be equally advantageous as it had hitherto been, and that it would promote the cultivation of the extensive fields for enterprise which are now opening in India, Russia, and other parts of the world.

THE SHOE BUSINESS OF LYNN.

We are indebted to the politeness of Henry A. Breed, Esq., the efficient Secretary of the Shoe and Leather Board of Trade, for the following statement exhibiting the number of workmen employed, the number of pairs of shoes made, and amount of capital, for the years 1856 and 1857. These statistics were carefully gathered by Mr. Breed, and may be relied upon as very nearly correct. Thus, in 1856, the number of workmen employed was 5,384; pairs shoes made, 5,404,493; amount of capital, $4,330,349; in 1857, workmen employed, 4.991; pairs shoes made, 5,496,813; amount of capital, $4,105.000.

It has been erroneously stated in one of the Lynn papers that the Board of Trade, at "a recent session, voted to dissolve." We learn from the best authority that such is not the fact. It still keeps up its organization, and will yet prove, we believe, an important institution for the benefit of the manufacturers. The Board now numbers 104 members, and the officers are as follows:—President, Hon. John B. Alley. Vice-Presidents, Nathan D. Chase, George W. Keene, John Wooldredge. Examining Committee, S. Oliver, Jr., P. P. Tapley, Charles Buffum, Thomas P. Richardson, James Purinton, Jr., A. S. Moore, Andrews Breed, Harmon Hall, Saugus; Samuel Sparhawk, Marblehead. Treasurer, Nathan D. Chase. Secretary, Henry A. Breed.

GOD'S COFFER: A SHORT SERMON FOR MERCHANTS.

[FROM THE GERMAN OF KRUMMACHER.]

There was once a respectable wealthy man, whose name was Benedict—that means "blessed." And he had a good right to bear such a name; for God had blessed him richly with all good things, and all who knew him blessed him too; and he always sought to make others happy—the stranger as well as the neighbor—particularly the poor and needy. But he did it in this way:—When he had passed a joyous day with his friends, he would go into his chamber, and think:—"There are many who have not had such a day of enjoyment. How would it have been, if I had invited as many more guests?" Then he would lay by of his money, as much as the feast had cost him, in a chest, which he called God's Coffer. In the same way, if he heard that there had been a fire anywhere, he would give largely for the relief of the unhappy sufferers; and then he would behold his own house, and go into his own chamber, and think, "All here is safe and unhurt," and immediately he would lay up some gold in God's Coffer. Whenever he heard of any destruction of property from thunder or hail, or drought or other mischances, he would lay up gold on account of it, in God's Coffer. Also, if he had occasion to buy wine, or costly furniture, he would purchase it but moderately, only to enable him the better to entertain his friends; and then go into his chamber, and say, "So much more mightest thou have bought, and have enriched thy stores," and lay up the value in God's Coffer. Besides which, he would willingly give of his best wine, if a sick person needed it. And as he lay on his dying bed, and death was approaching, the poor, the widows, and the orphans lamented and wept, and said, "Who will take pity on us when Benedict is taken from us? As long as he lived we wanted for nothing; but what will now become of us?" But he said, "A good householder takes care that when he is away his children should not want. Take God's Coffer, with all that is in it. It belongs to the poor, the widows, and the orphans; divide it, and use it well and wisely." And so God's Coffer has remained for hundreds of years, to the comfort of the needy, and the man is remembered with grateful blessings.

PRODUCTION OF STEEL IN EUROPE.

The production of steel in Europe is chiefly limited to four countries—England, France, Austria, and Prussia. Sweden, which yields the greater part of the material for the production of steel in England, produces but an inconsiderable amount of steel. The iron exported from that country to England, France, and some other countries, is all melted with wood charcoal, and the white pig iron is refined with the same kind of fuel. The only iron that is able to compete with this is the Russian iron from the Ural district. Thus, in England, the production of steel is entirely dependent upon Sweden or Russia for the supply of raw material, and in France, also, this is for the most part the case; while, on the contrary, Austria possesses in Styria, the Tyrol, Krain, and Corinthia; Prussia in the governmental districts, Coblenz and Armberg, immense deposits of sputhic iron ore—carbonate of iron—a mineral especially adapted for the production of native steel. Considerable progress in the production of steel has been made in Prussia, and various kinds of pig iron have been converted by puddling with coal into steel, which is sold at a very low price, and is suitable for the use of locomotives. At the Seraing Works, in Belgium, and at Creuzot, in France, it has been produced by puddling pig iron smelted with coke, and from this puddling steel cast-steel has been obtained. In Austria, the production of puddled steel does not seem to have been carried out on a large scale. But with the rich deposits of ore that are so well adapted for yielding steel, it is believed that when the use of brown coal in gas furnaces, for puddling and melting steel, has once been established in that country, it will become an important competitor with other steel-producing countries, since there will be a sufficiency of charcoal at the disposal of the smelters for the production of pig iron fit for conversion into steel. In France, the process of steel puddling has been practiced for some time by M. Holzer, at Unleux, in the same manner as in Prussia.

GIRARD, THE MERCHANT, AND THE MAN WHO MINDED HIS BUSINESS.

Stephen Girard, the merchant and banker, who flourished in Philadelphia not many years ago, was one of the best friends of the working classes that ever lived. He admired industry as much as he despised sloth, and there has never been known an instance where he did not furnish employment or money to an industrious man in distress.

Early one morning, while Mr. G. was walking around the square where the mechanics' houses now stand, John Smith, who had worked on his buildings in the humble capacity of a laborer, and who Mr. G. had noted for his unusual activity, applied to him for assistance, when something like the following dialogue took place :—

"Assistance—work—ha? You want to work?"

"Yes, sir; it's a long time since I've had anything to do."

"Very well; I shall give you some. You see dem stone yondare?"

"Yes, sir."

"Very well; you shall fetch and put him in this place. You see?"

"Yes, sir."

"And when you done, come to me at my bank."

Smith diligently performed his task, which he accomplished about one o'clock, when he repaired to Mr. G., and informed him that it was finished, at the same time asking if he could not give him some more work.

"Ah, ha! oui. You want more work? Very well; you shall go place dem stone where you got him. Understandez? You take him back."

"Yes, sir."

Away went Smith to his work, which having got through with about sunset, he waited on Mr. G. for his pay.

"Ah, ha! you all finish?"

"Yes, sir."

"Very well. How much money shall I give you?"

"One dollar, sir."

"Dat is honest. You take no advantage. Dare is your dollar."

"Can I do anything else for you?"

"Oui. Come here when you get up to-morrow. You shall have some work."

Next morning, on calling, Smith was not a little astonished when told that he must "take dem stone back again," nor was his astonishment diminished when the order was repeated for the fourth and last time. However, he was one of those happy kind of persons who minded his own business, and he went on with his job with all the indifference imaginable. When he called on Mr. G. in the evening, and informed him that the stones "were as they were," he was saluted thus in the most cordial manner :—

"Ah, Monsieur Smith, you shall be my man; you mind your own business; you do what is told you; you ask no questions; you no interfere. You got one vife?"

"Yes, sir."

"Ah, dat is bad. Von vife is bad. Any de little chicks?"

"Yes, sir; five living."

"Five? dat is good; I like five; I like you, Monsieur Smith; you like to work; you mind your business. Now I do something for your five little chicks. There, take these five pieces of paper for your five little chicks; you shall work for them; you shall mind your business, and your little chicks shall never want five more. Good bye."

The feelings of the grateful man being too much overcome to allow him to reply, he departed in silence; and by minding his own business, he is now one of the wealthiest of the name in Philadelphia.

WOOLEN MILLS ON THE PACIFIC COAST.

The first woolen mill on the Pacific Coast has been set in operation in Salem, Oregon. It runs four hundred and eighty spindles.

THE BOOK TRADE.

1.—*The Life of Thomas Jefferson.* By HENRY S. RANDALL, LL. D. In 3 vols. Vol. III., 8vo., pp. 581. New York: Derby & Jackson.

This, the third volume, closes Mr. Randall's voluminous life of Thomas Jefferson. We have before reviewed the work at some length, but a work of so much interest as this, we are ever ready to talk about. The author has shown a very commendable zeal in writing the life of this estimable man by dealing in those generalities which most biographers pass hastily over as minor points, but which, in such a man as Thomas Jefferson, whose whole life and every-day thought was the nation's, is an industry which cannot but be appreciated by the American people, and we commend it as giving a clearer insight into his views and private character on almost every topic, than can be arrived at in debate, or in his more ministerial capacity as the head of the nation. As a specimen of one of these, and inasmuch as the question of non-intervention is still at times being agitated in connection with our South American neighbors, we give below detached portions of a letter of his to Mr. Monroe, then President, dated Monticello, October 24th, 1823, on that famous "Monroe doctrine" which has so often filled the councils of our people, and the whole nation, with the ring of a battle shout:—

"The question presented by the letters you have sent me, is the most momentous which has ever been offered to my contemplation since that of independence. That made us a nation; this sets our compass, and points the course we are to steer through the ocean of time opening on us. Our first fundamental maxim should be, never to entangle ourselves in the broils of Europe; our second, never to suffer Europe to intermeddle with cis-atlantic affairs. America, North and South, has a set of interests distinct from those of Europe, and peculiarly her own; she should, therefore, have a system of her own, separate and apart from that of Europe. While the last is laboring to become the domicil of despotism, our endeavor should surely be, to make our hemisphere that of freedom. One nation, most of all, could disturb us in this pursuit; she now offers to lead, aid, and accompany us in it. By acceding to her proposition, we detach her from the band of despots, bring her mighty weight into the scale of free government, and emancipate a continent, at one stroke, which might otherwise linger long in doubt and difficulty. Great Britain is the nation which can do us the most harm if any one, or all, on earth; and with her on our side, we need not fear the whole world. With her, then, we should most sedulously cherish a cordial friendship; and nothing would tend more to knit our affections than to be fighting once more, side by side, in the same cause. Not that I would purchase even her amity at the price of taking part in her wars; but the war in which the present proposition might engage us, should that be its consequence, is not her war, but ours. Its object is to introduce and establish the American system, of keeping out of our land all foreign powers, and never permitting those of Europe to intermeddle with the affairs of our nation. It is to maintain our own principle, not to depart from it. And, if to facilitate this, we can effect a division in the body of the European powers, and draw over to our side its most powerful member, surely we should do it. But I am clearly of Mr. Canning's opinion, that it will prevent instead of provoking war. With Great Britain

withdrawn from their scale, and shifted into that of our two continents, all Europe combined would not undertake such a war. Nor is the occasion to be slighted which this proposition offers of declaring our protest against the attrocious violations of the rights of nations, by the interference of any one in the internal affairs of another, so flagitiously begun by Bonaparte, and now continued by the equally lawless alliance calling itself holy. But we have first to ask ourselves a question. Do we wish to acquire to our own confederacy any one or more of the Spanish provinces? I candidly confess that I have ever looked on Cuba as the most interesting addition which could ever be made to our system of States. The control which, with Florida Point, this island would give us over the Gulf of Mexico, and the countries and isthmus bordering on it, as well as all those whose waters flow into it, would fill up the measure of our political well-being. Yet as I am sensible this can never be obtained, even with her own consent, but by war; and its independence, which is our second interest, (and especially its independence of England,) can be secured without it, I have no hesitation in abandoning my first wish to future chances, and accepting its independence, with peace and the friendship of England, rather than its association, at the expense of war and her enmity. I could honestly, therefore, join in the declaration proposed, that we aim not at the acquisition of any of those possessions, that we will not stand in the way of any amicable arrangement between them and the mother country; but that we will oppose, with all our means, the forcible interposition of any other power, as auxiliary, stipendiary, or under any other form or pretext, and most especially their transfer to any power by conquest, cession, or acquisition in any other way. I should think it, therefore, advisable, that the executive should encourage the British government to a continuance in the dispositions expressed in these letters, by an assurance of his concurrence with them as far as his authority goes; and that, as it may lead to war, the declaration of which requires an act of Congress, the case shall be laid before them for consideration at their first meeting, and under the reasonable aspect in which it is seen by himself."

2.—*The Family Aquarium;* or, Aquavivarium. Being a familiar and complete Instructor upon the subject of the Construction, Fitting-up, Stocking, and Maintenance of the Fluvial and Marine Aquaria, or River and Ocean Gardens. By HENRY D. BUTLER. 12mo., pp. 121. New York: Dick & Fitzgerald.

The Aquarium has become, within a recent period, very fashionable, and almost a necessary luxury in every well-appointed household, and is fast superceding the old-fashioned fish-globe in the estimation of all those given to kaleidoscopic novelty. The author of the little volume, we believe, has the charge of that superb specimen of Aquaria now on exhibition in Barnum's (American) Museum, and is, therefore, fully entitled to the consideration of being authority on the subject of which he treats, and seems hugely in love with his profession, if we judge from the earnestness and spirit with which he enters into it. To all who would witness the grand spectacle of life, as being performed "below stairs," as we may term it—in that other theater of being to which we have, till recently, been excluded—as well as to all lovers of natural history, this is an innocent and beautiful study, serving as an introduction to the expansion of thought in contemplative minds, as well as showing how important a part the smallest atom of animal life enacts in the wise and wonderful economy of nature, and as such we recommend it.

3.—*Lord Montague's Page;* an Historical Romance of the Seventeenth Century. By G. P. R. James, author of "Richelieu," "Mary of Burgundy," &c., &c. 1 vol., 12mo., pp. 456. Philadelphia: Childs and Peterson.

The high qualities, excellent taste, prolific conception, and extensive knowledge which distinguish G. P. R. James as a novel writer, are well known. His productions now number full two hundred volumes, and there are few authors whose works have been more generally read than his, imbued, as they are, with a vein of cheerfulness, and chivalrous, and heroic sentiment, and appealing strongly, as they do, to that which is elevated and noble, while not a word or thought which can give pain to the purest heart or most sensitive mind ever escapes from his pen. It is for these qualities we admire Mr. James as a writer, although there are not wanting those who are ready to call him prosy, and say that a sameness pervades all his productions; yet we have ever considered him an artisan in the world of fiction of the highest grade. The present volume may be considered, although the hero is an Englishman, a picture of the times of Louis XIII., and has much to do with the character he has ever seemed so much in love with—the Cardinal de Richelieu, whom we here meet, not as a silver-headed sire, but as a young man, ere the finer feelings of his nature had been absorbed and swallowed up by the hard duties of the statesman, or the galling cares of the politician. The book contains a noble portrait of the author, as well as a biographical sketch of his life, and will be found every way worthy of a perusal.

4.—*The American Debater;* being a Plain Exposition of the Principles and Practice of Public Debate. By James McElligott, LL. D., author of the "Analytical Manual," "Young Analyzer," &c. 12mo., pp. 323. New York: Ivison & Phinney.

This volume will be found to supply a vacuum long felt by the public, as a guide to those of inexperience, who would acquit themselves at least decently, if not advantageously, while mingling in the proceedings of public assemblies and legislative bodies. "The endowments, both natural and acquired," says the author, "essential to the formation of a finished debater, are rare and various." This being the case, it becomes the interest, as well as the duty, of every American youth to prepare himself, as best he can, to figure advantageously in deliberative bodies. This he intends as a guide to render the reader familiar with the common code of Parliamentary law, and in this he is successful, as it will be found to cover the whole ground, and is written in such a practical demonstrative manner, as to render it perfectly comprehensible to the most inexperienced, while at the same time it gives evidence of careful and enlightened thought, and a minute understanding of the subject treated of. The work is accompanied with an elaborate index, by which any fact or desideratum can be readily arrived at, and may be considered, on the whole, to fill the place for which it is designed—a complete text-book for lyceums and all those aspiring to forensic honors.

5.—*George Melville.* An American Novel. 12mo., pp. 386. New York: W. R. C. Clark & Co.

This, judging from the hasty manner in which we have sketched it, appears to be a very spirited story of the times, exceedingly *conge* in its style, and partaking largely of that pseudo flippancy now so current in the present day—a good companion for a steamboat or rail-car just at this season, to be placed in your traveling-bag along with that indispensable accompaniment, the "Dreamer's Manual."

HUNT'S

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HUNT'S

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AND

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SEPTEMBER, 1858.

Art. I.—CONSIDERATIONS IN RELATION TO MARINE STEAM PROPULSION.

THE FULTONIAN SYSTEM IS WASTEFUL AND INEFFICIENT—IN THE USE OF THE OBLIQUITIES TO THE CRANK OVER ONE-FIFTH OF THE POWER HAS NO RESULTANT IN ROTATION—IN THE USE OF THE PADDLE-WHEEL TWO-FIFTHS OF ITS INHERENT POWER, TO THE "COLLINS SHIPS," IS WASTED BY CYCLOIDAL SLIP OF PADDLES AND OBLIQUITIES OF ACTION UPON THE SHIP—PRACTICAL EXPENDITURES OF POWER—55 PER CENT WASTED IN ORDER TO IMPART THE RESIDUE, OR 45 PER CENT, TO THE MOVEMENT OF THE SHIP—RIVER STEAMERS WASTE ABOUT 45 PER CENT AND UTILIZE ABOUT 55 PER CENT—TOWING STEAMERS WASTE EXTRAVAGANTLY LARGER QUANTITIES OF POWER—ANTI-MECHANICAL FEATURES OF THE PADDLE-WHEEL—OUTLINES OF A NEW SYSTEM—MECHANICAL STANDARDS OF ADAPTATION TO PROPULSION—NEITHER EXIST TO THE FULTONIAN OR SCREW SYSTEMS—INCOMPETENCY OF THE CRANK ENGINE TO UTILIZE OVER FOUR-FIFTHS OF THE POWER OF THE STEAM—A FORCE AT THE OBLIQUITY OF 30° TO THE CRANK COMPARED TO ITSELF IN MECHANICAL ACTION—ILLUSTRATION, TRUE TO OUR OBSERVATION, SHOWING 21¼ PER CENT OF THE NET MECHANICAL POWER OF THE STEAM WASTED, AND 78¾ PER CENT UTILIZED BY THE CRANK—FALSE AND DECEPTIVE OPINIONS, HOW FORMED—OBVIOUS REASONS FOR THE DIMINUTIVE VALUE OF AN OBLIQUE FORCE—PRACTICAL CONSIDERATIONS—COMMERCIAL CONSIDERATIONS.

STEAM navigation, since its first conception, during its first practical success, and its rapid and extended growth to the present time, has always been enshrouded by a known incompetency in the mechanism, by a known want of adaptation to its proper work, and by the belief that the due proportion of utility which ought to be derived from the steam was far from being realized, and consequently it has engrossed the most earnest inquiries of many of inventive talent and mechanical skill, for variations or substitutions by which to remedy the several defects, and introduce some mechanical applications better adapted to the duty of propulsion, and better calculated to satisfy even the common observer with the idea of fitness of means to the required ends, than the action of the steam lengthwise of the crank twice per stroke—producing the anti-mechanical phenomena of the "dead centers"—and interchanging these relations gradually with the mechanical center at every stroke; and than that of the massive wheel in the air from which to get a diminutive surface in the

water, and which diminutive surfaces move in very unnatural relations to the water, as in their cycloidal curves through it; and than that of the oblique action of the paddles, which, as they dip into the water, tend to elevate the ship out of it, and, as they rise from their lowest dip, tend to submerge the ship.

Half a century of skillfully educated development, under the Fultonian system, by cranks and paddle-wheels, has served to increase the growth from the "Clermont" of 1807, to our river palaces; and the ship of Henry Bell in 1812, to the magnificent trans-Atlantic ships, and even to the mammoth Great Eastern, yet the same anti-mechanical features that existed then exist now, and the combined skill of half a century has been insufficient to remove either one of the great local defects—defects which are radical, and hence, perpetual to the system, for the same anti-mechanical crank, and the same unnaturally acting paddle movement (or the no better adapted screw) have grown with the growth of the vessels—inheriting the same anti-mechanical nature, and which no combination of mechanical skill can ever *naturally adapt* to the required duty of propulsion.

THE FULTONIAN SYSTEM OF STEAM PROPULSION IS WASTEFUL AND INEFFICIENT.

First. In the use of the crank as a medium for transmitting the power of the steam to the movement of the vessel.

From the steam in action through its cylinder upon a uniform crank, such are its variable obliquities that we derive an inconstant rotatory force, varying from zero to maximum, and maximum to zero, at every piston stroke.

But from the same steam and cylinder, with a uniform radius—as in the "Cornish" or mining engines of Europe—disconnected from, or without the obliquities to, the crank, we derive a constant force *always maximum, and equal to that by the crank at the living center.*

Hence, we have the *prima facie* inference that that mechanical medium from which we derive, uniformly, a maximum useful effect, *through every indivisible space of the piston's motion, must be far more efficient and useful* than that medium from which we can only derive a maximum useful effect *at a single indivisible space of the piston's motion* as at the living center, *all other spaces of the piston's motion being less than maximum,* and variably so to minimum at the dead centers.

That is, there is just as many subdivisions, or indivisible spaces, of the piston stroke in the one case as in the other, and which under like and equal energy of steam in the one case vary, *gradually*, from no useful mechanical effect to full usefulness at mid-stroke, and again, *gradually*, to no useful effect; whereas, in the other case there is always a full, useful effect, and equal at every subdivision to that by the other at mid-stroke.

Hence, to claim that the sum of all the subdivisions of the piston-stroke, which have never full, useful, mechanical effect but once per stroke, are equal, in their aggregate, to the sum of all the subdivisions to the same stroke, which have full, useful, mechanical effect at every subdivision or indivisible space, involves a problem which can only be uttered upon the most positive proof, and such as shall clear the paradoxical inconsistency from every cloud of doubt.

But such proof has never been given, and never can be given; for the

wasteful expenditures of power by the crank, and the insufficiency of the obliquities of action, are subject to positive proof, and mere opinions to the contrary, or the interweaving of truths, sophisms, and assumptions, so as to form a web upon which to predicate conclusions favorable to the crank transmissions, are not only irreliable and deceptive, but directly injurious to the higher and full prosperity of commerce.

Second. The paddle-wheel is also wasteful and inefficient as a medium for propulsion, because not mechanically adapted to required duty.

Such is the want of mechanical adaptation of the paddle-wheel to impart the motive power applied to it, to the movement of the vessel, that it is impracticable for the wheels of the "Collins" steamers to impart over three-fifths of their rotatory power to the movement of the ship—two-fifths or more being wastefully expended to produce the rapid cycloidal slip of the paddles, and to produce horizontal motion from the oblique action of the wheels upon the ship.

When the fact—based upon the average practical data, or performance, of one of the "Collins" ships for several passages each way—is known, that so rapid is the depression of the paddles from the surface to their lowest dip and their rise again to the surface, that *their velocity of cycloidal slip exceeds one-half* (or about 57 per cent) *of the velocity of the ship*, we are surprised at the quantity of power required and expended to produce it, and which is wasted, having no resultant effect in the ship's motion.

Each paddle—and what is true of one is true of all under like and equal conditions—generates a cycloid by the horizontal motion of the ship with the circular motion of the wheels, and the paddles leave the water a very little aft of where they enter it, having moved about three times as far in their descent and ascent through the water as they have horizontally in the water, and having moved in their cycloidal curves at a rate exceeding half the velocity of the ship.

The average, or mean coal, immersion of the "Collins" steamer "Pacific's" wheels was about seven feet, the mean pressure diameter of her paddles was 34.4 feet, or 17.2 feet radii, but the ship moved just as fast as if rolling forward on wheels of 28 feet diameter, or 14 feet radii; consequently, all that part of her wheels below a horizontal level of 14 feet below the center of her shaft had a retrograde movement, and all that part above had a forward movement, whether immersed or not, and about 3 feet of her immersion is above this line, and actually slips forward in the water.

Hence, if the ship is moving at the rate of 22 feet per second, (which gives a little under 10 day's passage to Liverpool,) her paddles rotate about 27 feet per second, leaving a retrograde slip at the lowest point, or dip, of 5 feet per second, and at 14 feet below the center of her shaft of zero feet per second, or an average of $2\frac{1}{2}$ feet per second; but her cycloidal slip of paddles equals $12\frac{1}{2}$ feet per second.

The cycloidal slip covers or embodies the descending, ascending, forward, and retrograde slip, and is the *absolute measure* of the relative resistance of the water to the slip of the paddles, compared to its resistance to the slip or motion of the ship.

We may appreciate the high velocity of slip of paddles, since one-half of all of them *are forced by the steam* down several feet and up again in the same instant in which the piston makes a stroke.

The ship and paddles are each free to move in the water, according to the sum of their resistances to motion therein; and each is free to draw

from the common motive reservoir, the steam cylinder, the greater share of the same or the lesser share, according to the requisitions upon it to produce the slip of the paddles or the slip of the ship.

If, then, the freedom of motion in the ship is fully resisted, as if fast by her cables, the full power will be expended in the circular slip of the paddles; or if the wheels have full adhesion, as in the railway locomotive, the full power will be expended in the movement of the ship; and if equal resistance occur, equal quantities of power will be expended.

1st. Therefore, the expenditures of power are *inversely* as their resistances.

But the velocities in the water *are*, also, *inversely as their resistances.*

2d. Hence, the expenditures of power are as the velocities of the immersed surfaces of resistances.

3d. Or, since the quantities of power (drawn from the same reservoir) vary *inversely* as their resistances and directly as their velocities, the moving powers are as the respective resistances into the squares of their velocities. (I omit, for brevity, the mathematical proof of the above.)

We observe the resistances to motion, all and singly, whether the displacements into their variable velocities of displacement, or friction of surfaces, or whatever the resistances, are mutually and respectively adjustable to their relative motions, because of the perfect adaptation of *their common medium, the water*, to the one as well as to the other; the greater resistance giving the more perfect fulcrum for a greater motion to the lesser resistance, and the lesser resistance the less perfect fulcrum for motion to the greater resistance; and so that the resistances are strictly inversely as their velocities, and the velocities are as their powers.

Hence, when we can know the relative velocities of slip of vessel, and of paddles during their immersion, we know the relative quantities of power producing them.

During several trips of the late steamer "Pacific," the average movement of rotation, at the mean pressure point of her paddles, for several trans-Atlantic passages each way, was 3,810 miles, whilst the ship run 3,098 miles, denoting a retrograde velocity of slip to that part of the wheel vertically under the shaft of 712 miles, or 18¾ per cent of the rotatory velocity of the paddles, or 23 per cent of the advance movement of the steamer.

From the above, knowing the average or "mean coal" depth of immersion, we can derive, very nearly, the actual velocity of cycloidal slip. And in the case of the "Pacific," the ship's velocity was to the paddles' velocity of slip as 63.7 is to 36.3. Hence, of the aggregate quantity of power developed in *these two velocities* (not embodying the power developed in oblique action upon the vessel) 36.3 per cent is developed without any resultant effect whatever in the ship's motion, and 63.7 per cent is the useful, tangible effect which we observe in the ship's motion.

But there is, also, a mutual, simultaneous expenditure of the power of the wheels to produce horizontal motion from "the radial dip and lift," or oblique action of the paddles, which, through the shaft fixtures, tend to lift the ship out of the water, and those which tend to submerge her; and which act at variable obliquities to her line of motion, as only the paddle vertically under the shaft acts upon the ship in her line of motion, and this expenditure, being in addition to those producing the velocity of ship and paddles, and being derived from the same primary quantity, viz.,

the rotatory power of the wheels as imparted through the crank, *it must be jointly computed with those expenditures.*

Knowing the constructive relations of the wheels, and the average depth of immersion, we can very correctly compute the percentage of the quantity acting obliquely upon the vessel which is wasted, and though the analysis and mathematical combination of these expenditures is too lengthy to insert here, they show the following *practical* values of the power of the wheel, viz., about 9 per cent is expended to produce horizontal motion from the oblique actions upon the vessel; about 33 per cent is developed in the cycloidal slip of paddles; and about 58 per cent is developed *usefully in the advance of the ship.*

PRACTICAL EXPENDITURES OF THE POWER OF THE STEAM.

We observe from our *prima facie* case, as from analytical proofs hereinafter given in relation to the waste of power by the crank, that if we call the mechanical value of the steam, *irrespective of friction*, as 100 per cent, then the rotatory power of the wheels equals, and is represented by, 78¼ per cent.

And	9	per cent of	78¼	equals	7	per cent of	steam	by oblique action	7	per cent.
"	33	"	78¼	"	26	"	"	by cycloidal slip	26	"
"	58	"	78¼	"	45¼	"	"	*in ship's motion*	45¼	"
									78¼	

We observe the mechanical power of the steam is a distinctive, and not an interchangeable, term with the mechanical or rotatory power of the wheels—the difference is 21¼ per cent of the former; and this difference is common to all classes of marine crank-engines and to all steamers.

A more strictly *analytical statement* of the expenditures of the power of the "Pacific's" engines, gives—

21¼	per cent	*wasted*		to produce rotation from the oblique interceptions of the power by the crank.
7½	per cent	*wasted*		to produce the retrograde slip of the paddles.
1½	"	"	"	the forward slip of the paddles.
19	"	"	"	the descending and ascending slip of the paddles.
6¾	"	"	"	horizontal motion from the oblique actions of the wheels upon the ship.
56				
44	per cent	*usefully*		imparted to the movement of the ship.
100				

These are *practical* values, derived from practical data and practical relations, by practical proofs; and the evidences, facts, and proofs *are equally strong and absolute* to show 55 per cent of the net mechanical value of the steam developed, without any resultant effect whatever in the speed of the vessel, as to show 45 per cent developed in the speed of the ship.

RIVER STEAMERS.

But the relations of wasteful and useful expenditures by paddle-wheels are variable to different classes of steamers; as our river passenger steamers waste less power than the Collins ships, and the towboats waste more.

To light draft steamers the chief wasteful expenditures by the wheels is in the retrograde slip, none in forward slip, and but little in the oblique

action upon the vessel. There is, however, more expended in the retrograde slip than is generally supposed, because the general supposition is based upon the difference between the number of miles moved through by the paddles in rotation and the number of miles run by the vessel; but this does not ordinarily, and never by a single large engine, give the relative *velocities* of slip to the relative expenditures of power.

We may explain by the "Isaac Newton"—thus, all who have discriminately observed her know that her wheels have a very impulsive motion, and so variable that, when standing upon the borders of the Hudson away from the din of the city, their impulsive action is most plainly discovered by the quick, fluttering sound, intermitting an almost cessation of sound by her paddles as they strike the water, and these intermit at every stroke, or twice per revolution; showing that her chief and most wasteful retrograde slip occurs during only a part of the stroke, and just as she is most rapidly expending her power.

The mathematical adjustment of these commonly observed practical relations shows that this steamer, and her consort, to every regular passage waste (with a liberal margin) over one-third of the power of their wheels; and, consequently, that their passages are made under less than 55 per cent of the net mechanical value of their steam.

The difference, or 45 per cent, has no mechanical effect in the run of the boat, no more than if the same quantity of steam was let off through the safety-valve; yet it is a compulsory waste for want of mechanical virtue in the system by which to use the other part without it.

TOWING STEAMERS.

The large towing steamers upon the Hudson, as a class, exhibit the greatest extreme in wasteful expenditure of power, at the same time they *apparently* do a large duty for their quantity of coal; their cluster of barges making a large show, whilst their slow speed requires but a small quantity and slow expenditure of power. In these steamers the singular phenomena occurs of the speed of the tow being but little greater than the average velocity of piston, and less than the velocity of crank-pin, with the paddles slipping in retrograde two miles to the tow's forward movement of one mile; and when these conditions occur, over two-thirds of the power of the wheels, and nearly three-fourths of the net mechanical power of the steam, *is wasted*, in order to impart the diminutive remainder to the movement of the tow.

Therefore, when we see the fine steamers of this class surrounded by a cloud of barges and canal-boats, and in wealthy lines where every element of economical management and adaptation of the system is most studiously and rigidly observed, the mechanical inefficiency is astonishingly great; and the impossibility of mechanical skill remedying its defects is most obvious, and the system shows itself radically bad and mechanically unadaptable.

ANTI-MECHANICAL FEATURES OF THE PADDLE-WHEEL.

The paddle-wheel is mechanically unadapted to the duty of efficient propulsion.

1st. Because of the insufficient surface area in action upon the water.

The facts that the speed of steamers is not unfrequently increased by the reduction of their paddle surface, and that the area of paddles to passenger steamers may be too great for the same engine power if used

in towing service, do not detract from this truth, but, otherwise, they confirm it, because these facts arise entirely from other associate causes—that is, want of proper harmony in other mechanical proportions, to give the proper relations between the resistances and moving power, which cannot be so readily and so cheaply altered.

From three-fourths to five-sixths of the paddle surface of all steamers is constantly out of the water, and in action against the air; and to a stroke of the piston in the "Collins steamers," *per horse power upon it, there is less than half of an oar-blade of immersed surface;* and this is just as anti-mechanical as if a "Whitehall oarsman" should make a pulling stroke with an oar-blade no larger than the flat of his hand; yet it cannot be increased because of want of relative proportions, cycloidal slip, &c. We greatly cover up, except to a practical analysis, the anti-mechanical features of the present system by the extraordinarily large quantity of power centralized upon, and expended by, the marine engine.

2d. Because of the oblique action upon the vessel.

By the oblique action of the power of the steam upon the crank, *we convert a recti-lineal to a rotatory power*, by intercepting the lines of action, and changing them to tangent directions; and by the oblique action of the rotatory power of the wheels upon the vessel, *we convert a rotatory to a recti-lineal power* by intercepting the lines of action, (by the weight of the vessel to the dipping, and the buoyancy to the lifting paddles,) and changing them to horizontal directions. The same elementary laws of mechanics, and the same practical rules, apply to the one as to the other; reference is therefore made to the examination of oblique acting forces in regard to the crank, and if there is no waste of power by oblique actions upon the crank, there is none by the oblique actions upon the vessel, because of the unnatural movement of the paddles in the water.

So unnatural is the cycloidal movement in their quick descent and rise, and diminutive retrograde, that we cannot well or easily picture to the mind a more unnatural motion, when its singular path is traced to the eye; and it is as practically objectionable as the apparent movement is unnatural.

4th. Because these anti-mechanical features, or incompetencies of adaptation, cannot be remedied. *retaining rotation*, from the very nature of the case.

Analysis shows this, as does also the multitude of attempts under every variety of thought, and equal multitude of failures, to obtain more efficient wheels or paddles.

As a system, it is unnatural and wasteful to change the recti-lineal power actuating the piston to the rotatory power of the wheels *by oblique interceptions by the crank*, in order *to rechange* this rotatory power to a recti-lineal again, also *by oblique interceptions by the vessel.*

In navigation, as in the mining duties of Europe, we have a reciprocating recti-lineal motion from which to derive a continuous recti-lineal resultant; and in mining we have a heavy load in slow vertical movement; in navigation we have a light load and fast horizontal movement.

From the presentation thus made of our marine steam propulsion, it is evident that what we require, and what will alone constitute efficient propulsion, is the most simple possible mechanical conversion of the reciprocating recti-lineal motion to a continuous recti lineal of higher velocity, with the best practical adaptation to resist retrograde motion in the water as a fulcrum of locomotion.

Most obviously this cannot be done excepting by a NEW SYSTEM, the mechanical features of which *are radically different* from those of the old system, and which must embody—

1st. Perpendicular action of the power to the radius of transmission, in substitution for the oblique actions to the crank.

2d. A large resisting area of surface upon the water, in substitution for the present small area, which, because of other anti-mechanical features, cannot be increased.

3d. Action upon the water, parallel to and in opposite direction to the boat's motion, and upon the vessel in its line of motion, in substitution for the oblique actions of the wheels. Only ($\frac{1}{7}$) one-seventh of the immersed paddles of the "Collins wheels" act upon the vessel in the line, or direction of its motion; the other, ($\frac{6}{7}$) six-sevenths, is more or less oblique.

OUTLINES OF A NEW SYSTEM.

By the Cornish engine transmissions of power, or by the common marine engine disconnected from the crank, and the reciprocating railway oar-truck, parallel propulsion, which acts lengthwise of, and horizontally upon, the sides of the vessel, and which presents a feasible plan for a large resisting surface of immersion, we have a radically new system, which *combines*, in a feasible, durable manner, *the three essential features of mechanical adaptation to propulsion*, as—

1st. Direct action of the motive power perpendicular to the lever of transmission.

2d. An adequate resisting surface in immersed action upon the water as a fulcrum of propulsion.

3d. Action upon the water in a retrograde direction parallel to the run of the boat, and upon the vessel in the line of its direction.

It is plainly evident that these are the simple ESSENTIAL FEATURES of mechanical adaptation to propulsion, and, also, that THEIR COMBINATION IS ESSENTIAL.

But to the Fultonian system, *neither of these simple mechanical features exist;* hence, *they are not combined in it.* The screw propelling system is still less mechanical than the paddle-wheel, and possesses neither of these simple standards.

As these are *fundamental principles of mechanical adaptation*, if in any device whatever, one or more of these three features are wanting, there is an important deficiency, the degree of which rests upon the practical proximation to these standards; but where *all three are wanting*, we have a strictly anti-mechanical system; hence, we have the reason why the multitude of devices by which the improvement of the common paddle-wheel has been attempted and failed, and by which *substitutes* for the crank, retaining the wheel, and *substitutes* for the wheel, retaining the crank, have been attempted and failed; all of which failures could have been as well determined before as after trial by a discriminate analysis and comparison with these standards.

These outlines of a new system are only intended, in this article, to be sufficient to invite and enlist *a thorough knowledge* of the present system, of its demerits, of its prodigal or spendthrift character; for it was radically bad as it left the hands of Fulton, and it is equally so to-day, having grown in stature, proportions, and workmanship for the better; but in the

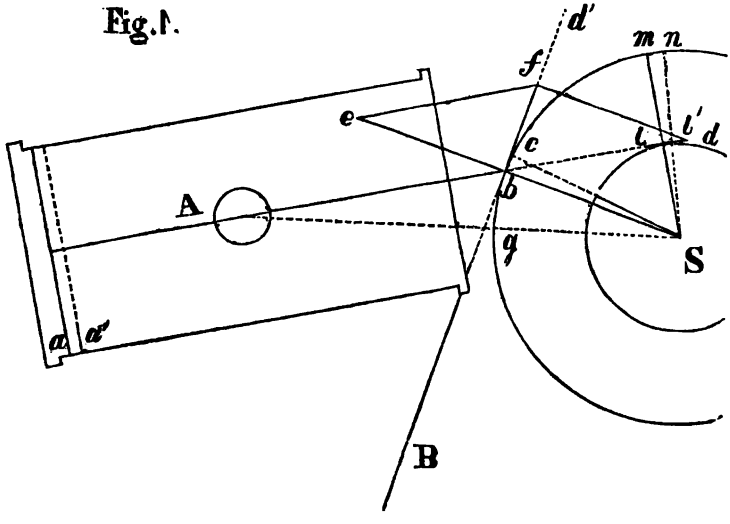
principles which are vital to its character, it has made no advance for half a century; and, to-day, the most talented engineers can say no more, in truth, for their splendid steamers, than that they are constructed perfect in their kind. If they go from the workmanship to the elementary principles, and follow the developments of the mechanical functions of the steam, they can only trace and sum up the lesser half of those functions *in the motion* of the sea-going ship, and will vary but little from one-half to the best inland steamers.

We cannot discard *the usefulness* of our present systems, (the screw being still less mechanical than the wheel,) spendthrifts though they are, until the usefulness of a new system shall supersede them; but a *mechanical system* will only waste power in retrograde slip; for this, to a certain extent, cannot be avoided, yet this, by the new system, will not exceed, if it shall equal, 20 per cent to steamships. All the other wastes now submitted to *are remedied by the inherent mechanical virtue*, and 20 per cent from the 55 per cent now wasted, will add 35 per cent of useful power to the 45 per cent now useful, making a moving power of 80 per cent instead of only 45 per cent; also, this supplementary 35 per cent exceeds three-fourths, or 75 per cent, of the 45 per cent.

Whatever the devices and improvements for generating power, or a greater quantity of power, it is highly important that the mechanical functions thereof shall be economically used.

And to the present sources of generating power, we shall soon be without excuse if we do not make passages in the same time now made with a largely *reduced rate* of consumption of fuel, and quantity; or, secondly, if we do not make passages in less time to the *same rate* of fuel—the quantity being reduced as the time is reduced; or, thirdly, if we do not make passages in considerably reduced time with an *increased rate* of fuel—(by increase of boilers and machinery to burn the greater quantity in the lesser time,) the quantity being the same as now used.

Fig. 1.



INCOMPETENCY OF THE CRANK ENGINE TRANSMISSIONS TO UTILIZE OVER FOUR-FIFTHS OF THE POWER OF THE STEAM.

As every line of application of power to the crank is oblique—excepting the line of perpendicular action at the living center—and variably so through every *possible obliquity* twice per piston stroke, a careful examination of a single angle of obliquity *forms the bases of computation* of all other angles.

Mechanical value of a given amount, or a given number of cubic inches, of steam expended at the angle of 30° to the crank, compared to its value expended in perpendicular action. To the oscillating engine, in fig. 1, let *aa'* equal the motion of the piston, and represent a given number of cubic inches of steam. Then, at this angle of 30°, as *Abs* or *dbs*, crank-pin space *bc* equals twice piston space *aa'*, and the tangential pressure at *b* equals half the applied pressure.

Let space *ll'* equal space *aa'*, then as *sm* equals twice *sl*, or $\frac{\text{radius}}{2}$, space *mn* equals space *bc*, and the pressure at *m* equals half the pressure at *l*. But *the velocity of piston* when connected at *b*, is *only half its velocity* when disconnected at *b* and connected at *l*.

This is shown by observation, (as also by demonstration,) as, since the tendency of the piston to velocity at the dead center (as in *Ags*) is zero, when the pressure of rotation is zero, and since the *tendency* of the piston to velocity increases from zero to full velocity at the living center, (as if cylinder *A* is changed from *Ags* to *Abs*, and more to *Bbs*,) just as the pressure of rotation increases from zero to full; and as the pressure of rotation increases from zero as the sines of the angles of obliquity increase, so *the velocity of piston* increases as the sines of the angles of obliquity increase, or varies as the sines of the angles vary.

Hence, as the sine of the angle of piston velocity at 30° (as *sl* in direction *Abd*) equals half radius, or $\frac{\text{radius}}{2}$, and in perpendicular action (as *sb* in direction *Bbd'*) equals radius, the velocity of piston at *b* in *Abd* is *only half its velocity* at *b* in *Bbd'*.

But the velocity of piston at *b* in direction *Bb is the same as at l* in direction *Al*, the pressures at points *d* and *l* being equal; because *both are simple perpendicular actions*, and the power of the steam in each is instantly transmitted.

(*a*) Consequently, the velocity of the piston in *Ab* connected at *b*, is only half its velocity in *Al* connected at *l*.

(*b*) Further, as the velocity of piston *A is only half the velocity of crank-pin b*, and *is only half* the velocity of piston when connected at *l*, it is true that *the velocity of piston* connected at *l equals the velocity of crank-pin* connected at *b*.

(*c*) Hence, the mechanical duty *exerted by the steam upon point b* is 100 lbs. pressure into the velocity of crank-pin.

(*d*) Also, the mechanical duty exerted by the steam *upon point l* is 100 lbs. pressure into the velocity of crank-pin, *as the velocity of point l equals that of crank-pin b.* (See marginal reference *b.*)

The expenditures of steam are measured by *aa'* when in oblique action through *bc*, and by *aa'* equal *ll'* in perpendicular action through *ll'*; therefore, *the primary cost* and *mechanical values of the steam expended are equal*, and in *each* case are represented by 100 lbs. pressure *into velocity of crank-pin.* (See *c* and *d.*)

But the UTILIZED *value in bc* is not the 100 lbs. pressure exerted upon
(*e*) the crank-pin *b*, but the *pressure of rotation derived from it*, which is only half of 100 lbs., or 50 lbs., and only *equals* 50 lbs. *tangential pressure into velocity of crank-pin*, or $50 \times v$.

And the UTILIZED *value in ll'* equals 100 lbs. pressure into velocity
(*f*) of crank-pin. Its equivalent in space *mn*, equal *bc*, is 50 lbs. into *twice the velocity of crank-pin*, or $50 \times 2v$.

That is, if *aa'*, *ll'* each equal one inch, *bc*, *mn* each equal two inches, then *the same number of cubic inches of steam*, and same intensity of pressure, which, when connected at *b* can only move 50 lbs. 2 inches in *bc*, in an instant of time *t*, when connected at *l* can move 50 lbs. 2 inches in *mn*, in one-half of the same instant of time *t*, or *with double velocity*.

Therefore, the quantities of steam, the loads moved, and the spaces, all being respectively equal, the UTILIZED VALUE OF THE STEAM is as the velocities, which are as velocity *v* in *bc* is to velocity $2v$ in *mn*, or as $\frac{1}{2}$ is to 1.

The *difference* in the utilized values derived from the steam *equals the wasteful expenditure*, in consequence of developing it through the anti-mechanical relations of the obliquity of 30° to the crank.

Again; to harmonize *the velocity of piston*, when connected at *b*, with its velocity when connected at *l*, *we must extend relief* to the functional element of pressure exerted at *b*, which we may do by reducing the resisting load in *bc* from 50 lbs. to 25 lbs., or one-half, and we thereby double the constituent element of velocity.

We have, then, a utilized value of 25 lbs. 2 inches in *bc* in half of
(*g*) the former time, or in one-half of instant of time *t*, or with velocity $2v$, and in *mn* of 50 lbs. 2 inches, in half of instant of time *t*, or velocity $2v$.

Therefore, the quantities of steam, the spaces passed, and the times, *being respectively equal*, the utilized value of the steam in oblique action is to that in perpendicular action as their respective loads, which are as 25 lbs. is to 50 lbs.

(The spaces *bc*, *mn* may be treated as so extremely small that the difference of angles *Abs*, *Acs* would not be appreciated.)

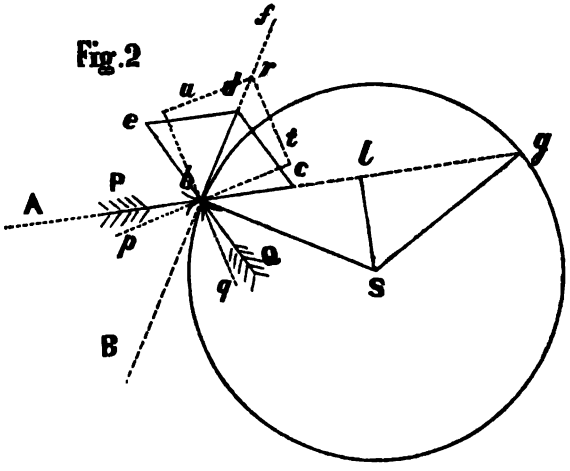
We thus show that the useful effect sought for from a given amount of steam in oblique action, at the angle of 30° to the crank, is only half that due to, and realized from, the same steam in perpendicular action.

And what is true of *one oblique force*, of *x* cubic inches of steam, compared to the same force of *x* cubic inches of steam in mechanical action, is true of all other obliquities, according to their respective angles and relations.

The philosophy of these values is simple, and is that the force—or motive functions of the steam—acts in the direction *bd*, in which line it cannot move a hair's breadth, being rigidly intercepted in *bs*—it therefore reacts in direction *be*, *and derives from itself a sufficient quantity of force* to change its direction from its line of impossible motion to a line of possible motion, which is the tangential line *bf*. The quantity of force thus expended equals *bd*—*bf*, and can no more be utilized than if the same quantity was expended upon friction. (These relative values are entirely irrespective of friction.) That utilized equals *bf*.

If, for the reactive force in line of crank as in *be*, we remove the crank and substitute an additional force in same line and direction *sb*, equal to *be*, or cosine of the angle—force *A* being equal to radius—then the joint

resultant of this larger quantity, equal to $bd + be$, is still diagonal bf of parallelogram $bdfe$. Now *the quantity of force wasted*, in order to utilize their mechanical functions *in this direction*, equals $\overline{bd + be} - bf$. That utilized equals bf.



Again; we may examine the same values by the familiar laws of composition and decomposition of forces.

We may resolve the force A, as before considered, into two equal forces PQ, each equal to half A, or $\frac{\text{radius}}{2}$, and each acting at the same angle of 30° to crank bs. Then the action of P is represented by *bc in its primary value and direction*, and that of Q by be; and their tangential or utilized value by their diagonal bd of parallelogram $bcde$. And $bc + be$ equals radius; and bd equals $\frac{\text{radius}}{2}$, equals sl or bf in fig. 1, because it is the sum of the sines of the angles PQ, or equals sine of $2 \times \frac{\text{radius}}{2}$, and sl equals sine of radius.

Q acts the same upon the crank as P would if crank-pin b had revolved to g; and PQ being in simultaneous action at equal obliquities to rotate crank-pin b in tangent direction bd, *P must exert a portion of its force* to change the direction of Q from be to bd, and *Q must exert a portion of its force* to change the direction of P from bc to bd, as bd is the only direction in which P or Q can move the least fraction of an inch.

The primary or net mechanical value of $P + Q$ equals $bc + be$, but their utilized value only equals bd, or half of $bc + be$.

We cannot equivocate from the quantity of power or steam expended, as whatever the quantity and intensity, it is represented by $bc + be$, the useful resultant of which *is only half the expended value.*

The difference between the primary and the utilized value, is the value wasted by changing the obliquities of action to their tangential directions.

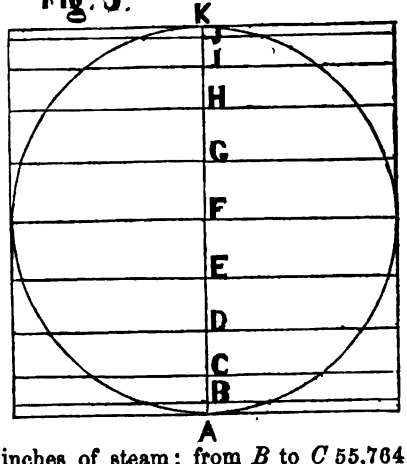
Friction has no element in these relations, but is external or correctional to them, because we may centralize the resistance or load at point b, and remove the crank bs, and the respective values are unchanged; hence, the waste of power by this obliquity of action is irrespective of, and in addition to, friction.

We may show the variable relations of utilized values by varying the forces PQ more and more obliquely until they merge in the "dead center," or right line *sb*, when the diagonal continually lessens from *bd* until it merges in point *b*, and the utilized value is zero. And if we lessen the obliquities by varying PQ towards *Bb*, as at *pq*, at the angle of 45°, the diagonal equals *br* of parallelogram *btru*, or 70 per cent of $P + Q$; and as we further move them more and more towards *Bb*, until they are merged in line *Bb*, the diagonal increases more and more until it equals *bf*, which equals *bc* + *be*, or radius.

ILLUSTRATION, TRUE TO OUR OBSERVATION, WHICH SHOWS 78½ PER CENT OF STEAM IN MECHANICAL ACTION EQUIVALENT TO 100 PER CENT IN STEAM UPON THE CRANK.

Let the square of the figure represent a steam cylinder of 100 inches diameter, or 7,854 inches area of piston, and 100 inches stroke, as in *AK*, and consider the connecting rod to the crank as if infinitely long; and divide the crank-pin stroke into ten equal spaces; and then, as the piston moves from the "dead center" *A* to *B*, the crank-pin has moved through the first tenth of its stroke, and as piston moves from *B* to *C*, the crank-pin moves through its second tenth; and so on successively and relatively to the "dead center" *K*.

Fig. 3.



From *A* to *B*, the capacity of the cylinder equals 19,242 cubic inches of steam; from *B* to *C* 55,764 cubic inches, and variably on. The pressure upon the crank-pin to a net of 10 lbs. per inch, equals 78,540 lbs. (or 35 tons) to every indivisible space in *AK*, and *the average utilized pressure* at the crank-pin from *A* to *B* equals 12,135 lbs.; from *B* to *C* 35,225 lbs., and variably on; from which we make this table:—

STEAM CAPACITY OF CYLINDER.		UTILIZED PRESSURE AT CRANK-PIN.	
	Cubic inches.		Pounds.
From A to B	19,242	To first tenth	12,135
B to C	55,764	second tenth	35,225
C to D	86,865	third tenth	54,860
D to E	109,485	fourth tenth	69,155
E to F	121,344	fifth tenth	76,655
F to G	121,344	sixth tenth	76,655
G to H	109,485	seventh tenth	69,155
A to I	86,865	eighth tenth	54,860
I to J	55,764	ninth tenth	35,222
J to K	19,242	tenth tenth	12,135
From A to K	785,400	Average	50,000

The piston velocity is reduced *below the velocity at F*, and to zero at *A* and *K*, just as the pressures are reduced below 78,540 lbs. at *F*, and to zero at *A* and *K*. Hence, as the piston and crank-pin velocities at *F* are identical, the crank-pin velocity is the velocity *due to the piston* at every

inch of its stroke, but being reduced by the interceptions of the crank, the crank-pin velocity compensates for its reduction. (The reduced pressures are uncompensated.)

If we now inscribe a circle in square AK, it will represent a hollow sphere, the same as the square represents the steam cylinder; and from it we derive variable relations in regard to the crank, which are both true in fact and true to our observation; and we observe that the quantity of steam represented by the circle varies from A to F and F to K, just as the pressures of rotation at the crank-pin vary; and that if in perpendicular action to its radius, it possesses at every susceptible chord of the circle precisely the same utilized pressure that the full quantity represented by any section of the cylinder possesses.

Also, that the difference between the inscribed circle and circumscribed square, precisely equals the quantity of steam wasted by the obliquities to the crank, (which equals 21.46 per cent of the cylinder steam;) and that at every sectional division by the piston, the difference between the chord and the section of the square, indicates the steam wasted at such obliquity.

We have then the obvious facts that no steam at A and K in mechanical action utilizes the same (zero) pressure which the 7,854 square inches do in oblique action, and that the chord at B precisely represents the quantity of steam equivalent to the 35 tons pressure at the end of the first tenth, and the chord at C that at the end of the second tenth, and variably so through the stroke; from which we derive the following table:—

	STEAM CAPACITY OF SPHERE.		UTILIZED MECHANICAL PRESSURE.	
From A to B is.....	3,002	cubic inches.	Average.....lbs.	12,135
B to C.....	25,234	"	"	35,225
C to D.....	61,172	"	"	54,860
D to E.....	96,889	"	"	69,155
E to F.....	119,433	"	"	76,655
F to G.....	119,433	"	"	76,655
G to H.....	96,889	"	"	69,155
H to I.....	61,172	"	"	54,860
I to J.....	25,234	"	"	35,225
J to K.....	3,002	"	"	12,135
From A to K equals....	616,853	cubic inches.	Average.....lbs.	50,000

We thus observe that the utilized pressures of rotation, to each and every indivisible space in AK in the cylinder action of steam upon the crank, are precisely equal to each and every corresponding space in AK in the spherical action of the steam upon its radius, and that each average 50,000 lbs. through AK.

But the *piston velocity*, or velocity of steam, *in the spherical action is uniformly equal to* the piston velocity at F in the cylinder action, (at which point it is identical with the crank-pin velocity,) hence equals the crank-pin velocity.

Consequently, the velocity of the cylinder piston is only 63⅔ per cent of the velocity of the piston in the sphere. Or the cylindrical stroke requires 1.57 times the time of the spherical stroke.

Therefore, to harmonize the velocities of pistons, or their times, we must reduce the resistance at the crank-pin from the average of 50,000 lbs. to 63⅔ per cent of itself, or to 31,833 lbs., which will increase the velocity of the cylinder piston equal to that of the sphere.

We have, then, the utilized value of spherical steam equal to 50,000 lbs. into velocity v, or equal 50,000 v.

Also, of the cylinder steam equal to 31,833 lbs. at crank-pin, into 1.57 velocity v, or equal 50,000 v.

But the quantity of steam in the sphere is just 78.54 *per cent of the quantity in the cylinder; and the quantity of steam wasted by the obliquities to the crank*, is the quantity outside of the sphere or circle, and inside of the cylinder or square, and *equals* 21.46 *per cent of the quantity in the cylinder.*

Hence, to the common steam cylinder, *by the Cornish transmission—dispensing with the crank—*78½ *per cent of steam will equal the useful duty of* 100 *per cent of steam when connected with the crank.*

We thus present to the ready observation of the eye and judgment of the mind, *by this harmony of coincident relations*, correctly illustrated truths of the practical relations of the crank-engine, its variations by the functions of the circle, its worthless expenditure of over one-fifth of the net power of the steam (which has no more resultant effect in the rotatory power of the wheels, than if the same percentage, or 168,546 cubic inches, of steam escaped through the safety valve;) and of the utilization of nearly four-fifths of the power of the steam.

CHARACTERISTICS OF THE CRANK-ENGINE, FROM WHICH FALSE AND DECEPTIVE OPINIONS ARE FORMED.

First. From the fact that the pressure on the piston into its *average velocity* equals the *average rotatory pressure* at the crank-pin into its velocity.

That is, since 10 tons net pressure on the piston into 10 feet stroke per second, equals 6.36 tons crank-pin pressure of rotation into its motion of 15.7 feet per second, it is claimed that there is no waste of power by the obliquities to the crank.

We must observe that the mechanical value of the steam is not what it can do when rigidly intercepted by the crank at every functional energy to move, but what it can do when untrammeled by obliquities. Therefore, unshackle the piston from the crank, and its "average velocity," moving 10 tons pressure, is not what it was per stroke, but what it was at midstroke—its only mechanical condition, its "dead centers," are vanquished—and such as to make its 10 feet stroke in .63 of a second, or with 1.57 times its shackled velocity.

Comparing one part of a complex machine with another part thereof, has no tendency to discover its imperfections, but we should compare its action when attached to the crank with its action when detached. Or we may compare the functions of the steam exerted upon the machinery with the useful effect derived from it; and thus—the steam exerts a constant pressure of 10 tons upon the crank-pin into its velocity, from which the utilized value equals 6.36 tons pressure of rotation into same velocity.

Second. From the characteristic that the velocity of crank-pin varies from that of piston *inversely* as the pressure of rotation varies from the applied pressure.

This fact has led to the false inference that the velocity of crank-pin COMPENSATES for the diminished rotatory pressure. That is, it has been claimed that, since the velocity of crank-pin is 1.57 times that of the piston, and its average rotatory pressure .63¾ of the applied pressure, and

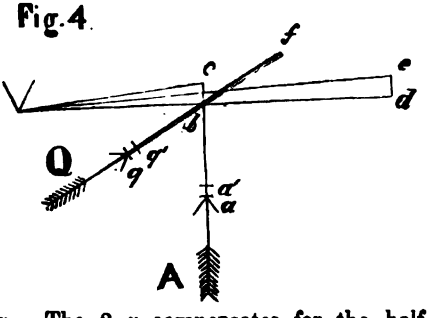
since $63\frac{3}{4} \times 1.57 = 1$, the greater velocity of crank-pin compensates for the lesser pressure of rotation.

But the compensating velocity for zero pressure of rotation at the dead center *is an infinitely high* velocity of crank-pin, and *equal capacity of piston motion as at the living center.* Also, the compensating velocity for half-pressure of rotation, as at the angle of 30°, is twice the velocity of crank-pin at midstroke, the velocity of piston being equal to its velocity at midstroke. But every one's infantile knowledge of the crank.engine stamps these conditions as absurd, and we observe the controlling fact that *the piston velocity is reduced* also, just as the pressures of rotation are reduced, or varies as they vary; under which their exists a necessity of allowing the crank-pin velocity to *compensate for the reduction of the velocity of piston;* whilst we are compelled to allow that the reduction of the pressure of rotation is taxable to the obliquities to the crank.

The law of "virtual velocities" is only applicable to the tangential resultant of an oblique force.

SELF-EVIDENT REASONS WHY AN OBLIQUE FORCE MUST BE LESS EFFICIENT THAN IF NOT OBLIQUE.

Fig. 4.



To illustrate a simple mechanical force, let F be a fulcrum, Fb radius, Fd twice radius; and force A equal 100 lbs. through one inch, or bc in an instant of time t, or $\frac{t}{2}$ with velocity v. Then its equivalent at d is an interchange of half the pressure with double velocity, or 50 lbs. through de, two inches in time t, or with velocity 2 v. The 2 v compensates for the half pressure.

To illustrate an oblique force, we may now change A to the angle of 30° as at Q, when it represents the piston action to the last half of the stroke.

We now observe that *every resulting mechanical condition is changed;* and, first, that Q is not free to move in direction Qbf, as A is in Abc, for it is rigidly intercepted in line Fb., so that it cannot move *the least fraction* of an inch in line bf, and the *only possible motion* for point b is in *the new direction* bc.

The constituent elements of force Q equal those of force A, and are a determinate function of pressure (represented by 100 lbs.) and a determinate function of velocity *due to the pressure*, (represented by velocity v,) see quantity A; and though these are inseparable, they are, however, interchangeable.

This rigid interception of force Q by the crank Fb, *effects, jointly*, its mechanical function of velocity in qq', and its function of pressure in direction bc, as,—

1st. Q *is not free to develop its function of velocity* through qq', one inch in time t, because it must exert itself first in direction bf; and, secondly, in direction bc, (whilst A exerts itself instantly in bc.) Hence,

Q must take twice the instantaneous time of action upon point *b* which *A* takes, or twice the time of action upon each indivisible space in *qq'*, which *A* takes to each indivisible space in *aa'*. And as *A* takes instant of time *t* to the sum of all its indivisible spaces in *aa'*, *qq'* being equal to *aa'*, *Q must take two instants of time t, or 2 t.*

(*i*) Consequently, as *A* acts through *aa'* with velocity *v*, and *Q* through *its equal space* in twice the time, it is with only half the velocity, or *v*.

2d. Also, *Q is not free to develop its function of pressure* upon point *b* through *bc*, because it must exert itself upon every indivisible space in *bc in the same time* that it exerts itself upon every indivisible space in *qq'*; and as *qq'* equals one inch, and *b c* equals two inches, there are twice as many indivisible spaces in *bc* as in *qq'*; hence, *Q* can exert itself upon each indivisible space in *bc* with only half the intensity

(*j*) or quantity (50 lbs.) of pressure which it exerts upon each indivisible space in *qq'*.

Therefore, the function of velocity developed by *Q* in *qq'*, is to that developed by *A* in *aa'*, as 2 *t* is to *t*, or as *v* is to $\frac{v}{2}$.

And the function of pressure developed by *Q* in *bc*, is to that developed by *A* in half *bc*, as 50 lbs. is to 100 lbs.

We have then the utilized value of *A*, at *b*, equal to 100 lbs. x *v*, or at *d* = 50 lbs. x 2 *v*; utilized value of *Q*, at *qq'*, equal to 100 lbs, x $\frac{v}{2}$, or at *b* = 50 lbs. x *v*: that is, *A* moves 100 lbs at *b* one inch in time *t*, or at *d* 50 lbs. two inches in time *t*; and *Q* moves 100 lbs. in *qq'*, one inch in time 2 *t*, or at *b* 50 lbs. two inches in time 2 *t*, or with half the velocity at *d*.

It may be asked, why are demonstrations repeated under different views? It is because very many practical men deny the diminutive resultant of an oblique force; and because they are professionally so situated that their opinions, however groundless in truth, have an extended influence; and the *different views* showing the inefficiency of the obliquities of force are given, hoping to dissipate such improper influence against the true interests and advancement of the mechanic arts.

PRACTICAL CONSIDERATIONS.

The *average* analytical velocity of piston is only 63½ per cent of that *due to the* value of the steam; and this analytical relation would be the true *practical relation* if equal quantities of steam were expended at, and near the ends of the stroke *upon each obliquity*, as are expended at, and near mid-stroke; but as *lesser quantities to each* obliquity are expended at the extremes than at the mean of the stroke, the exact quantity of steam expended upon each must be taken into account.

Hence, by a correct combination of these relative expenditures, the *practical* velocity of the piston, under the uniform pressure upon it, is increased from 63½ per cent to 78½ per cent of the velocity of piston *due to the steam*. Or, in its correlative consideration, the *average* rotatory pressure of crank-pin (the velocity of crank-pin equalling the function of velocity due to the steam) is increased from 63½ per cent by the *practical correction* due to the variable expenditure of steam upon each obliquity to 78½ per cent of the applied pressure. *That is, only 78½ per cent of the mechanical*

value of the steam, irrespective of friction, is practically utilised by the crank-engine.

The more strictly mathematical and analytical formula by which the variable obliquities, and variable expenditure of steam to the respective obliquities are coupled, and by which the wasteful power and useful power are computed, are here omitted; because of their less readable character, and because of the full illustration by Fig. 3. The percentages here given are the practical values, for the formula takes the precise quantity of cubic inches of steam to each obliquity, the precise wasted quantity to each change of direction, and the precise utilized quanity to each obliquity; and the sum of that which is wasted plus the sum of that which is utilized, equals the net primary mechanical value of the steam.

COMMERCIAL CONSIDERATIONS.

Several million dollars, and to the United States steam tonnage alone nearly three million dollars, are annually sacrificed to the insatiate crank, and yet other several millions to its natural allies, the paddle-wheel and screw; or if we may not charge such wholesale sacrifice of commercial interests and prosperity to these things operated upon, then these many millions are sacrificed to the incompetency of skill in the useful arts, to disenthrone them and install their superiors and successors, and it may be they have been sacrificed to the consequences of false education, by which genius and experience have looked upon their perfect workmanship and harmony of system as the true standard of every quality of adaptation; or perhaps to the caprice of some who because of early opinions, now for opinions sake, will shut out the light of demonstrations, confirmatory proofs, and accumulation of facts forming that standard of reliable knowledge upon which alone the true progress of mechanical skill and the highest prosperity of commerce can rest.

What is the true character of a system of which its ablest advocates can only say of its noblest ships, matured under the most lavish expenditures of skill and wealth, as of the Adriatic, Vanderbilt, Ocean Queen, and Persia, that they are mechanically competent to transmit from their cylinders and impart to the movement of the ship something over two-fifths of the extraordinary quantity of motive power centralized and expended upon their pistons, but that *they are wholly and absolutely incompetent to develop one-half of such large and so expensive quantity in the run of the ship?* Able engineers may give *opinions* to the contrary, they may, Pharaoh like, insist upon and exert every capability and resource to maintain commerce under her bondage and servitude to an incompetent system, but opinions, unsupported by knowledge, contradicted by the boldest and most obvious facts, and impossible to draw a support from proofs, are "like the house whose foundations are built upon the sand."

Shall marine steam commerce stand longer in the back-ground, whilst inland commerce has established a progressive era? We cannot carry our railway system, by a bold comparison, *back to our* steam marine system, yet we can correctly make a limited comparison, and thus—our steam propulsion is to what it should be, as the stages in our avenues are to the cars. That is, when we unhitch the horses from the stage and hitch them to the car, we can more than double their load of transfer; so, too, when we can unhitch our steam pistons from their anti-transmissive mechanism and hitch them to naturally adapted mechanism, we add may to our steam-

ships nearly two-fold their power of propulsion, to our inland steamers add over half their present utility of steam; and to our towing steamers more than double the useful capacity of their power.

Again, steam commerce may stand still, and rest upon her laurels won without a competitor, for fear, doubt, or insufficient knowledge, and thus retard and delay a meritorious system, but merit of principles, adaptation, and feasibility have hitherto never been placed in the scales of knowledge against the demerits of which we have treated; yet the inherent virtues of mechanical adaptation will in due time advance independent of, and reformatory to, the hereditary system.

There is nothing inconsistent in the presentation of this subject *with any proofs* by any scientific authors—rather all such proofs harmonize with and confirm these practical truths; it is, however, inconsistent with an indiscriminate intermingling of proofs and assumptions not susceptible of proof, and of truths and errors from which and by which *sophistical conclusions* have been drawn, which cover up the squandered power surreptitiously drawn by the crank from the exchequer of commerce; and it is inconsistent with the "don't know and don't care" judgment of too many in regard to the so large prodigalities of power by the wheel and screw.

Art. II.—TRANSATLANTIC TELEGRAPHS.

EARLY HISTORY OF THE ATLANTIC TELEGRAPH—TRANSATLANTIC ROUTE VIA GREENLAND—SEVEN ATLANTIC LINES PROJECTED—PROGRESS IN TELEGRAPH ART AND SCIENCE—GALVANIC CURRENTS AS TO QUANTITY AND INTENSITY—ELECTRIC CIRCUITS TELEGRAPHICALLY—RETARDATION OF ELECTRIC CURRENTS ON SUBMARINE LINES—ATLANTIC TELEGRAPH LINE TO NEWFOUNDLAND—ATLANTIC TELEGRAPHS POLITICALLY CONSIDERED.

"I'll put a girdle round about the earth in forty minutes."

THE Atlantic telegraph cannot be traced to any one as the speculative or ideal originator. There are many, on both continents, who have said, "The day will come when the Atlantic Ocean will be crossed by a telegraph." Prior to 1853, I had been engaged for some years as projector, builder, president, &c., of Southwestern telegraph lines, on which had to be constructed submarine crossings. These experiments led me to embark in the Atlantic telegraph project in 1853. In the fall of that year I removed to the East, and published a magazine in New York, advocating the practicability of the enterprise.

EARLY HISTORY OF THE ATLANTIC TELEGRAPH.

In February, 1854, Mr. H. B. Tebbetts called on me in Washington City, and contracted with me to assume the management of a Newfoundland telegraph company, which I saw would advance my own project, namely, an Atlantic telegraph. On that occasion, the following facts were given me. They will be found in an historical account of the Newfoundland telegraph, published in 1855:—

"In June, 1851, Mr. H. B. Tebbetts, of the city of New York, associated with him several influential gentlemen, for the purpose of organizing

a company to build steamers of a large size, to run between the ports of New York and Galway, Ireland. These ships were to be adapted to perform the mail service, and to accommodate emigrant travel from Ireland.

"In originating this enterprise, Mr. Tebbetts conceived the idea of the Newfoundland telegraph, which is at present so prominently before the public. Confident of the practicability of the project, he entered into a correspondence with different members of the government of Newfoundland in regard to the subject, and with the view of making St. John's a port of call for the steamers to and from Galway.

"Soon after, the government ordered a survey to be made, and on its completion sent the engineer, Mr. Gisborne, with his report and a letter of introduction from Mr. S. G. Archibald, dated December 17, 1851, to Mr. Tebbetts. The introduction resulted in the offer of the sum of twenty thousand dollars by Mr. Tebbetts to the engineer, on condition that he would return and procure a charter from the government. The offer was accepted, the engineer returned and succeeded in procuring the charter, which was granted in March, 1852, and under which Mr. Tebbetts organized the Newfoundland Electric Telegraph Company.

"When Mr. Tebbetts first conceived the project, it was his design to run small steamers across the Gulf of St. Lawrence between Cape Ray and Cape North, the proposed termini of the land lines in Newfoundland and Cape Breton. Up to this period, every attempt to manufacture a submarine cable had been attended with a failure. Shortly after, however, it was discovered that by means of gutta percha the conducting wires could be completely insulated, and in less than a year the first cable was laid between France and England, a distance of twenty-six miles. This was performed in September, 1851.

"The success of this cable led to the abandonment of the plan of running steamers between Cape North and Cape Ray, and to a change in the route of the line. It was decided that the line should run from New Brunswick to Prince Edward's Island, and thence to Newfoundland. The company ordered a submarine cable to be made, which was laid down in September, 1852, between New Brunswick and Prince Edward's Island, a distance of ten miles.

"After expending about one hundred thousand dollars in the prosecution of the work, embarrassments arose, and the company was obliged to suspend payment."

It was at this time that Mr Tebbetts desired me to take charge of the affairs of the company. I visited New York for that purpose, when I assisted Mr. Tebbetts in interesting the gentlemen now engaged in that company to embark in the enterprise. A new charter was obtained from the government of Newfoundland.

The property of the old company was purchased by the new. Previous to the dissolution of the Newfoundland Electric Telegraph Company, the charter was surrendered to the government. The new association was organized under the title of the New York, Newfoundland, and London Telegraph Company.

Mr. Peter Cooper was made its president. The charter embraced the monopoly of landing an Atlantic cable on Newfoundland for fifty years. With great energy, and at much cost, the company proceeded to complete the line to St. John's, Newfoundland, having in view an arrangement to induce the steamers to make St. John's a port of call, and to this end the

steam companies were consulted. Up to that time, April, 1854, no one was dreaming of an ocean telegraph, as an enterprise, but myself, and with that view I caused the Newfoundland charter to embrace the monopoly for landing the cable. About the same time the experiments of Professor Faraday, on the retardation of the electric currents on submarine wires, were published.

THE TRANSATLANTIC ROUTE VIA GREENLAND.

The state of the science at that time caused me to proceed to Europe and procure concessions for Greenland, Iceland, and the Faroe Isles from the king of Denmark, which was granted me in August, 1854, for the term of one hundred years, so that "dispatches might be transmitted, insomuch as the contents thereof might not be regarded as dangerous to the Danish State, or of the common weal, from and to all nations;" the Danish government pledging its faith to the bestowment of all "necessary care and vigilance, as well as the means, to insure the free and unhindered use of the said electric telegraph for the benefit alike of all nations."

On the 6th of February, 1855, I was granted a royal concession from His Majesty the king of Sweden for the continuation of the transatlantic telegraph contemplated in the royal concession of Denmark across the kingdom of Sweden.

On the 21st of February, 1855, I was granted a concession for the landing of the cable of the transatlantic telegraph, under the royal Danish concession aforesaid, on the coast of Norway, and its connection over the territory of the kingdom of Norway.

Having obtained the royal Danish concession, and at the request of His Majesty Nicholas I., Emperor of Russia, I visited St. Petersburg, and laid before him my project for a line around the world, and the negotiation ended thus:—

1. The transatlantic line from America to Europe via Greenland, Iceland, and the Faroe Isles, being deemed the most practicable route, was to be prosecuted to success, Russia furnishing the means to complete it to St. Petersburg.

2. On the consummation of certain ideas—wholly with the Imperial government, and which cannot transpire at present—the line from Moscow was to be extended across Asia to San Francisco. The route of that line was described in the emperor's official journals at Moscow and St. Petersburg, in substance, as translated, viz.:—

Leaving St. Petersburg, Mr. Shaffner proposes to run his line to Moscow, or connect at the latter place with the Imperial lines already in operation; from thence to Kazan, across the Ural Mountains, into Asia, passing through Omsk, Kolivan, Kansk, Oudinsk, to Irkoutsk, near Lake Baikal.

From Irkoutsk it is intended to run the line to the Sea of Ochotsk, either north to Yakoutsk, or south to the Amoor River, and thence along the coast of the Sea of Ochotsk to Iamsk, and across the gulf to Cape Utkoloka, Kamschatka, and thence along the Aleutian Isles to Aliaska Peninsula, or Cooke's Inlet, in North America. From this point the line will be run along the Pacific coast to Oregon, and south to San Francisco, California. This range is entirely south of the latitude of St. Petersburg, and, in fact, the line can be carried around by Behring's Straits, and be south of the Arctic circle.

From San Francisco, Mr. Shaffner proposes to run the line along the best route to the Salt Lake or Santa Fé, and thence to the western boundary of Missouri, where it will intersect the existing section of the California line, built by him a few years ago.

With these arrangements consummated, I returned to America, and formed an alliance with the New York, Newfoundland, and London Telegraph Company.

In 1856, arrangements were concluded with an organization in London, under a British charter, for the construction of the line from Newfoundland to Ireland, which has recently been laid—the details of which have been fully made known to the public.

THE SEVEN ATLANTIC TELEGRAPH LINES PROJECTED.

Several other projects for ocean telegraphs have been waiting for the final result of the line across from Ireland to Newfoundland. Among these may be mentioned the following, viz.:—

1st. The line from Quebec, across Labrador, Davies' Straits, Greenland, the sea to Iceland, and over that isle, and thence to the Faroe Isles, to Norway, and to north Scotland. It is proposed to construct the land lines underground, having the whole distance three electric or conducting wires for telegraphic service. The longest water section is only 460 miles. The aggregate land air line from New York to London is estimated at 2,430 miles; water sections, 1,312 miles; or total, 3,742 miles. The slack for the water sections will be less in whole than will be required on the other lines. The friends of this enterprise claim it to be the most practicable for the construction and maintenance of a telegraph. This is an American project.

2d. A line is proposed by Mr. Allan and others, of England, to run from Ireland to Nova Scotia. The friends of this enterprise are gentlemen of great zeal and ability, fully commensurate with the vastness of the undertaking.

3d. A company has been organized in England to construct a line from Land's End, Great Britain, to the Azores, and from thence to Nova Scotia or to Nantucket. This project has been presented with much force and confidence.

4th. A line has been projected to connect the continents by way of Florida, the West Indies, traversing Cuba, Hayti, Porto Rico, St. Thomas, Cape Verde, and thence along the African coast, or by the Canary Isles, to Portugal. The gentlemen embarking in this route are Danish, Spanish, and German. They have been engaged for some time past in procuring the necessary concessions.

5th. A line is proposed to be run direct from Great Britain to the United States. The friends of this measure are Englishmen.

6th. A line has been advocated by substantial gentlemen to extend from Charleston, South Carolina, to the Bermuda Isles, then to the Azores, and thence to Portugal or to France.

From these facts it will be seen that there are seven different telegraphs proposed to be constructed across the Atlantic, extending from the equator to the Arctic regions of the north. Each route has its friends, with resolute determination to attain success. I have no doubt but what a cable can be laid on either of them. The longest line will be the most southern, and the shortest the most northern. The capacity of each to

transmit messages is the question of doubt. The operation, shortly to be tried on the line from Newfoundland to Ireland, will determine the life or death of all the lines having long water sections. The celerity of the transmission of messages on that line will determine the utility of the other projects; and, therefore, the projectors of the respective routes are now waiting with much solicitude the result of the operation on that line. If it be found practicable to work long circuits under water, as may be required by the routes herein stated, then it is to be hoped that they will all be constructed, and individually and nationally aided.

The depths of the ocean will not hinder the success of an ocean line. The most southern line has the deepest water; being about 5,000 fathoms; the northern is the most shallow, being about 1,500 fathoms. The more central routes will cross the gulf stream, and the laying of a cable across its course may be difficult, but I confide in the belief that the difficulty may be overcome.

I have thus far written upon the early history of the Atlantic telegraphs, and of the respective projects for crossing its mighty billows, and traversing its depths with a flame for the enlightenment of man and for the weal of nations.

PROGRESS IN TELEGRAPHIC ART AND SCIENCE.

The science of electricity is much surrounded with mystification. In latter years, many of its hidden cells have been exposed to man. Less than one hundred years ago Franklin discovered that lightning and electricity were identical. In 1819, Oersted, of Copenhagen, discovered electro-magnetism. The discovery of the galvanic battery was a grand achievement in science. The electric telegraph was the union of these two latter discoveries. After the invention of the telegraph, and the construction of the experimental line from Washington to Baltimore in 1844, the telegraph spread with wonderful rapidity throughout the world.

For a long time water crossings gave the telegraph companies much trouble. Submarine crossings all failed, until the discovery of gutta percha at Borneo, a substance found on the islands of the Indian Archipelago in great abundance. This concrete juice, taken from the Isonandra Gutta tree, was found to be a non-conductor. This was a grand stride in science and art, and it advanced the telegraph. With the aid of gutta percha, rivers, straits, seas, and the ocean have been crossed. Experience has discovered that submarine lines have difficulties to overcome not common to air lines. The electricity passing over a wire on poles has resistance in distance to overcome; or, in other words, the electric current must have intensity or energy sufficient to overcome distance. Besides this, heat, being a conductor, more or less of the electric influence is taken from the wire by hot air and conducted to the earth. In hot climates, I have known parts of the day when messages could not be transmitted in long circuits. In northern climates this difficulty is seldom observable. Before speaking of the passing of an electric current on submarine wires, it is necessary to describe the nature or character of a galvanic current, serviceable for the telegraph.

GALVANIC CURRENTS AS TO QUANTITY AND INTENSITY.

Electricity, used for telegraphic purposes generally, is styled galvanic. On one line in England magnetic electricity is employed. The telegraph

requires a battery that will generate the smallest amount of *quantity current*, but of the greatest *intensity current*. It is necessary to fully understand these terms. In reference to their use, Professor Faraday says, viz.:—

"The character of the phenomena described in this report, induces me to refer to the terms *intensity* and *quantity* as applied to electricity, terms which I have had such frequent occasion to employ. These terms, or equivalents for them, cannot be dispensed with by those who study both the static and the dynamic relations of electricity. Every current, where there is resistance, has the static element and induction involved in it, whilst every case of insulation has more or less of the dynamic element and conduction; and we have seen that, with the same voltaic source, the same current in the same length of the same wire gives a different result as the intensity is made to vary with variations of the induction around the wire."

The *quantity* of electricity developed by any galvanic battery depends practically upon the size of the plates used. The *intensity* is the force with which the quantity is brought to bear upon anything to produce a given result; its *energy*, in overcoming obstacles or impediments to the free passage of the electric current. This *intensity* is generally acquired by increasing the number of cells, and it is proportioned to that numerical increase. A *quantity current* can be so great as to be unmanageable for telegraphic service. It becomes as restless as static, or lightning electricity, and will leave the wire if in proximity to another conductor. An *intensity current* is necessary for overcoming distance. In reference to this subject, that distinguished philosopher, Dr. Lardner, says, viz.:—

"To produce the effects, whatever these may be, by which the telegraphic messages are expressed, it is necessary that the electric current shall have a certain *intensity*. Now, the *intensity of the current* transmitted by a given voltaic battery along a given line of wire will decrease, other things being the same, in the same proportion as the length of the wire increases. Thus, if the wire be continued for ten miles, the current will have twice the *intensity* which it would have if the wire had been extended to a distance of twenty miles.

"*It is evident, therefore, that the wire may be continued to such a length that the current will no longer have sufficient intensity* to produce at the station to which the dispatch is transmitted *those effects by which the language of the dispatch is signified.*

"The *intensity of the current* transmitted by a given voltaic battery upon a wire of given length, will be increased in the same proportion as the area of the section of the wire is augmented. Thus, if the diameter of the wire be doubled, the area of its section being increased in a fourfold proportion, the *intensity of the current* transmitted along the wire will be increased in the same ratio.

"But in practice it is needless to push the powers of transmission to any such extreme limits. To reinforce and maintain the intensity of the current, it is only necessary to establish, at convenient intervals along the line of wires, intermediate batteries, by which fresh supplies of the electric fluid shall be produced; and this may, in all cases, be easily accomplished, the intermediate telegraph stations being at distances, one from another, much less than the limit which would injuriously impair the intensity of the current."

The extent of the intensity of the current depends much upon the battery employed. Some batteries generate more *quantity current* than others, and then there are batteries which give out a current of greater *intensity* than others. There are different batteries in use on the telegraph. The grove battery, or a modification of it, is the most genaral in telegraphic service.

ELECTRIC CIRCUITS TELEGRAPHICALLY.

Having now fully explained the nature of *electric currents*, it becomes necessary to speak of those currents in their application to *circuits*. An *electric circuit* is common to an *electric current*. There cannot be one without the other. The term *circuit*, means the length, or distance, of the telegraph wire on which is employed the electricity generated by any given battery before it is thrown into the earth. On a line from New York to Washington, the *current of electricity* passes over the wire, then into the earth, and many suppose, and believe in the theory, that the current of electricity makes its way back to New York, through the earth, there connects with the wire that runs from the battery to the earth; ascending that wire it completes its *circuit*. Unless the ends of the wire are connected with the earth, there will be no electricity, except there be two wires run from New York to Washington, by which the *current* will be *sent* on one, and it will *return* on the other. In this latter case, the ground is not employed, but the wire will connect both ends of the battery and complete the *circuit of the wire* over which can flow the *current of electricity*, which is the completion of a *circuit of electricity*. In further explanation with reference to the telegraph, suppose a line of telegraph with one wire is run from New York to Washington, about 250 miles. The battery is in New York. A wire from one end of the battery is run to the moist earth; from the other end of the battery is run a wire through the machine in the New York office, thence over the poles to Washington into the office, through the machine, and then into the earth, where the end is burried as was with the other end in New York. The moment the wire in Washington is connected with the earth, and not until then, the battery in New York commences to generate electricity. If the wire is taken out of the earth, the battery ceases to act. The current starting from one end of the battery, passes through the machine in the New York office, thence over the poles to Washington, into the machine there, setting it in motion, passes on to the earth. Practically, there is a battery at Washington on the wire between the machine and the earth. When the current leaves New York it is *strong*, and when it gets to Washington it is *feeble*. *Intensity* forces it to Washington. The machine in Washington being set in motion, puts into action another circuit beyond to Petersburg, Virginia, and from thence a circuit extends to Augusta, Georgia; on which, as well as all the circuits or sections, another battery is employed; beyond this circuit is another to Montgomery, Alabama, and the next to Mobile, Alabama, and the next circuit extends to New Orleans, and thus the whole distance required is overcome. The operator in New York transmits the message, the machines at Washington and other places beyond transfer the message from circuit or section to the next succeeding, until it reaches its destination at New Orleans. The whole distance may be estimated at 1,800 miles, having five distinct and separate electric circuits, averaging 360 miles for each, with an inde-

pendent battery on the respective circuits. These machines are called *repeaters*, because they *repeat* the message on to the next circuit. The arrangement is called the *combining of circuits*, and the offices are called *relay* stations. These circuits may extend to 400 and 500 miles, and on rare occasions to 600 or 700 miles. As a general practice, there is not a line in America that works in one circuit a distance of 700 miles. Iron wire is used as conductors all over America and Europe, on overground lines. Copper wire is used on all underground lines. Ratio of conductibility for copper is 100, and for iron 15.5. If the lines on poles were copper, of equal size as the iron wire now used, it might be practicable to work a circuit of 800 or 1,000 miles, and, as a phenomena for wonderment, at a very cold and frosty time, a current might be transmitted 1,500 or 2,000 miles, but not for any practicable purpose in telegraphing.

RETARDATION OF ELECTRIC CURRENTS ON SUBMARINE LINES.

The underground telegraph has difficulties to overcome not common to overground lines. The most prominent hinderance is called the *retardation of the electric current*, and sometimes styled the *return current*. When a stream of electricity is thrown on a submarine wire it is *retarded* in its transmission. It requires time to pass. A power exterior acts against it, and finally stops its further extension, and holds it in the electric wire. Professor Faraday has made some valuable experiments on underground lines. In a paper to the Royal Institute, he said, viz.:—

"In consequence of the perfection of the workmanship, a Leyden arrangement is produced upon a large scale; the copper wire becomes charged statically with that electricity which the pole of the battery connected with it can supply; it acts by induction through the gutta percha, (without which induction it could not itself become charged,) producing the opposite state on the surface of the water touching the gutta percha which forms the outer coating of this curious arrangement. The gutta percha, across which the induction occurs, is only 0.1 of an inch thick, and the extent of the coating is enormous. The surface of the copper wire is nearly 8,300 square feet, and the surface of the outer coating of water is four times that amount, or 33,000 square feet. Hence the striking character of the results. The intensity of the static charge acquired is only equal to the intensity at the pole of the battery whence it is derived; but its quantity is enormous, because of the immense extent of the Leyden arrangement; and hence, when the wire is separated from the battery and the charge employed, it has all the powers of a considerable voltaic current, and gives results which the best ordinary electric machines and Leyden arrangements cannot as yet approach.

"Mr. Clarke arranged a Bain's printing telegraph with three pens, so that it gave beautiful illustrations and records of facts like those stated; the pens are iron wires, under which a band of paper, imbued with ferro-prussiate of potassa, passes at a regular rate by clock-work; and thus regular lines of prussian blue are produced whenever a current is transmitted, and the time of the current is recorded. In the case to be described, the three lines were side by side, and about 0.1 of an inch apart. The pen *m* belonging to a circuit of only a few feet of wire and a separate battery; it told whenever the contact key was put down by the finger; the pen *n* was at the earth end of the long air wire, and the pen *o* at the earth end of the long subterraneous wire; and, by arrangement, the key

could be made to throw the electricity of the chief battery into either of these wires simultaneously with the passage of the short circuit current through pen *m*. When pens *m* and *n* were in action, the *m* record was a regular line of equal thickness, showing by its length the actual time during which the electricity flowed into the wires; and the *n* record was an equally regular line, parallel to and of equal length with the former, but the least degree behind it; thus indicating that the long air wire conveyed its electric current almost instantaneously to the further end. But when pens *m* and *o* were in action, the *o* line did not begin until some time after the *m* line, and it continued after the *m* line had ceased—*i. e.*, after the *o* battery was cut off. Furthermore, it was faint at first, grew up to a maximum of intensity, continued at that as long as battery contact was continued, and then gradually diminished to nothing. Thus the record *o* showed that the wave of power took time in the water wire to reach the further extremity; by its first faintness, it showed that power was consumed in the exertion of lateral static induction along the wire; by the attainment of a maximum and the after equality, it showed when this induction had become proportionate to the intensity of the battery current; by its beginning to diminish, it showed when the battery current was cut off; and its prolongation and gradual diminution, showed the time of the outflow of the static electricity laid up in the wire, and the consequent regular falling of the induction which had been as regularly raised."

In reference to this subject, Mr. Edward Bright, the very able secretary of the Magnetic Telegraph Company, in association with the Atlantic telegraph, has written a very clear paper, viz.:—

"On extending this system (underground lines) throughout the United Kingdom, where circuits of several hundred miles were brought into operation, it was found, upon communicating a current to such wires, that, after the withdrawal of the excitation, (whether galvanic or magnetic electricity was employed,) an electric recoil immediately took place at the end of the wire to which the current had been previously communicated. This recoil was apparently analogous in all respects to the discharge of electricity from a Leyden jar, except that the current flowing from the wire partook of a quantitative, rather than intense, nature.

"Although this phenomena, as analyzed by Dr. Faraday, has proved highly gratifying in a philosophical point of view, its existence interfered materially with the working of all the previous existing telegraphic apparatus, not having been at all contemplated or provided for; and, up to this time, I am not aware that, as regards the galvanic system, any adequate remedy has been applied. The nature of the interference will be easily understood, when I mention that, with a letter printing telegraph, the surplus current has the tendency to carry the machinery on further, and to make other letters than those intended. With the chemical and other recording telegraphs, the surplus flow of electricity will continue nearly a minute, entirely confounding the marks representing one letter with the next. And, lastly, with Cooke and Wheatstone's and other needle telegraphs, a beat more is made by the back current than intended with every letter formed.

"Another remarkable feature, to be noticed in connection with the underground system, is the small comparative velocity with which the electric impulse is communicated through each conductor in long circuits.

"In experiments conducted by my brother and myself upon a circuit of four hundred and eighty miles (480) of the underground wires, a *marked* difference between the communication of the electric impulse, and its arrival at the other end, has been observed; the interval required for the passage of the sensation amounting to rather more than a third part of a second.

"The rate of transmission of the galvanic or magnetic fluids, through such conductors, is therefore only about 1,000 (one thousand) miles per second.

"Professor Wheatstone's experiments, showing the passage of *frictional electricity* through a short length of wire in a room, to take place at a speed approaching 300,000 miles per second, are well known, and incontestible.

"A subsequent experiment, conducted by Professor Walker, on some of the overground wires comprised in the American system, gives the velocity of the galvanic current, through two hundred and fifty (250) mile circuits, at about sixteen thousand miles (16,000) per second.

"The underground wires, however, as just mentioned, give a far lower result; and hence it appears evident that the velocity of frictional electricity far exceeds the voltaic or magnetic current, owing, doubtless, to the far greater intensity and comparatively small quantitative development of the former.

"The retardation experienced in underground wires, as regards the propagation of the electric impulse, is not, however, due to any resistance of the conducting medium; for, as it is found in the instance of the Leyden jar, that the frictional electricity communicated is temporarily absorbed by the metal in the interior of the jar, so the galvanic or magnetic currents, during their passage through the underground wires, are partly absorbed, until the mass of copper constituting the wire is saturated with electricity; and it would also appear that a definite time is occupied in the absorption of the electricity by the successive portions of the wire, such as is found to occur in charging a Leyden jar; and until this process of impregnation has been completed, the sensation cannot be communicated to the other end of the conductor."

In relation to this subject, the following question, amongst others, was propounded to Mr. Charles T. Bright, the present engineer of the Atlantic Telegraph Company, and his answer to the same is herewith given, viz.:—

"43. What do you consider return currents; and to what extent do you find the existence of the same on both overground and underground lines? Please state all the points fully."

"*Answer* 43*d*. On overground lines they are very trifling, indeed, compared with underground; the conditions on which the wires are suspended and insulated, passing also through a medium, capable, to a certain extent, of absorbing any electricity developed in surplus, prevents the occurrence of any effects appreciable by ordinary needle telegraphic instruments.

"I look upon an underground wire as being exactly similar, on a large scale, to a Leyden jar, and I am borne out in this by the experiments of my brother and myself, and by those instituted by Faraday on the underground wires more recently laid by the Electric Telegraph Company. The magneto-electricity, as well as the galvanic (or chemical) electricity,

evinces these phenomena, hitherto supposed to belong to properties appertaining peculiarly to frictional electricity.

"The copper may be compared to the inner metallic coatings of a Leyden battery, the gutta-percha to the glass, and the earth and moisture surrounding to the outer covering.

"I was much interested, in one of our experiments, to observe that the larger the size of the wire experimented upon, with the same battery power, the greater the amount of return current; a strong support of our opinion, as, had it arisen from an *elastic* return, owing to the wire being unable to receive as much electricity as was forced into it, as some supposed, of course a *smaller* wire (with the same power as that employed with the larger size) should have given out a *greater* amount of return current. If you experimentalize on No. 18 and No. 16, you will see this very clearly."

After the failure to lay the ocean cable in 1857, Prof. Morse, the co-electrician of the company, and who was in the vessel that payed out the cable, wrote thus, viz.:—

"We got an electric current through until the moment of parting, so that electric connection was perfect; and yet the *further we payed out, the feebler was the current.*"

No detailed report on this subject was published. The attempts to lay the cable have been unfortunate until the last which has been announced within the past few days. No account of the electrical force has been made known. It has been stated that signals have been sent from Newfoundland to Ireland, but with what rapidity has not been published. According to the experiments of Mr. Bright, the speed of the electric wave is not rapid. In answer to a communication from me, he said, viz.:—

"In the course of a long series of experiments carried on last year by my brother and myself, inquiries were instituted with reference to the speed with which the galvanic or magnetic sensation is communicated through underground wires.

"The result of the inquiry shows decidedly that the communication of the electric impulse through a length of 500 miles of underground gutta percha-covered copper wire ($\frac{1}{4}$ gauge) does not exceed 900 to 1,000 miles per second—a speed far below that usually assigned.

"Reasoning upon the issue of these experiments, and those previously tried in America, I have no doubt that the speed of any description of electricity varies greatly with the peculiar conditions and nature of the conductor used, and also with the length of the conductor interposed; and that a wire suspended in the open air, especially if insulated only at points of its support, (such as in a pole line,) would offer far less resistance (*cæteris paribus*) than a wire underground.

"Submarine cables are similar, as regards electrical conditions, to subterranean lines, and the speed with which the electric impulse is communicated would be the same."

THE ATLANTIC TELEGRAPH LINE TO NEWFOUNDLAND.

Having now very fully explained the nature and importance of the electric currents, circuits, and character of the electricity employed, I need not add any views upon the practicability of operating the recently laid line from Newfoundland. The experiments made before sailing were

so unsatisfactory that a notice of them would not serve to form a reliable opinion. Justice to the company requires a suspension of an opinion, until a fair opportunity be afforded for a perfect experiment.

It is not contemplated, I believe, to operate a recording telegraph upon the line from Newfoundland to Ireland. The needle, or signal system, will be employed. In England, two wires are used in the transmission of message, by which, Mr. Foudrinier stated, 21¼ words could be sent in a minute, as an average, on an air line. It is stated further, that by a single wire one-third of that number of words can be transmitted. The celerity on submarine lines is much reduced from the above. On the ocean line, a little time more will develop the speed of sending messages upon it.

The cost of the line from Newfoundland has been variously stated, ranging from three to five millions of dollars, and to each of the governments assisting, about one-and-a-half million of dollars. To encourage the enterprise, several grants, concessions, and appropriations have been made by the United States, Great Britain, and the Colonies. The capital invested is nearly entirely English. The energy that brought it to success in submerging the cable was American. The company is organized under British charter, in London. The line from New York to London is owned by four companies, viz., New York to Nova Scotia, by the American company; from Nova Scotia to Trinity Bay, Newfoundland, by the New York, Newfoundland, and London Telegraph Company; across the ocean, by the Atlantic Telegraph Company; and, from the Irish coast to London, by the Magnetic Telegraph Company.

During the late session of Congress, the Judiciary Committee of the Senate had before it the charter of the Atlantic Company, granted by the Parliament of Great Britain, and it was therein discovered that the appropriation of the $70,000 per annum for 25 years, made by the former Congress, could not be made to that company, in conformity with the law of Congress, and that the contract contemplated to be made between the United States and the Atlantic Telegraph Company cannot be executed, by which the $70,000 per annum was to have been paid. The committee reported, viz.:—

"The act of Parliament, however, incorporating the Atlantic Telegraph Company, seems, in some of its provisions, to render any contract with that company inadmissible, within the intent of Congress, as evidenced in the act authorizing a contract. The act certainly embodies a controlling power by Great Britain over the company incompatible with the provisions of the act of Congress. The 36th and 52d sections are more particularly referred to, as giving a control to the British government over the company, which impairs its authority to make such a contract as the act of Congress contemplates on behalf of the United States."

The objectional part of the 36th section contains the following, having reference to the *ex-officio* director appointed by the government:—

"Such *ex officio* director shall have power, in case he shall be of opinion that any course proposed to be taken, or act proposed to be done, by the company will, or may, be prejudicial to, or inconsistent with, the due fulfillment of their contracts with the government, or the regular, speedy, and impartial transmission of messages and signals for the public, or otherwise disadvantageous to the government or the public, to *veto* the taking of such course, or the doing of such act."

ATLANTIC TELEGRAPHS POLITICALLY CONSIDERED.

It has always occurred to me that the United States government ought to endeavor to secure, by treaty, in conjunction with the governments of Europe, for political considerations, a free and unhindered use of the ocean telegraphs for all nations alike. Now that it cannot execute the contract with the Atlantic Company, would it not be patriotic for the government to employ the sum of that appropriation of $70,000 for 25 years, to the advancement of all lines across the ocean, and particularly such lines as shall terminate on the soil of our own flag?

In political affairs, the Atlantic telegraphs will serve a wonderful part for good or for evil. If international, it will be well, but if under the control of any one nation, much evil could be the consequence. This was foreseen, by me, from the first introduction of the Atlantic telegraph to the public. In order to prevent any nation from having an unfair control over the enterprise, the following was embraced in the Royal Danish concession for the transatlantic line, the principles of which are concurred in by the auxiliary concessions of Norway and Sweden, viz.:—

"That the government of Denmark will forever defend and preserve the rights of the United States, and the people of all nations, to transmit messages over the line herein contemplated, provided the said messages are not calculated to promote war, insurrection, riot, or the violation of peace among nations."

In case the line from Newfoundland to Ireland proves practicable, it will be of great utility to the British government in the administration of its colonial affairs. In case of war between England and the United States all means of communication from and to our people can be prevented. That it would be done, no one can doubt. Suppose France and the United States were allied against England, would the British government allow cypher messages to pass between its enemies, contemplating its ruin? Of course it would not, unless compelled by an international treaty, not possible to be suspended by any power, either in time of peace or in time of war.

An ocean telegraph can be the means of continuing peace and terminating war. A few months since the whole nation was ready for a war with England, on account of the late gulf difficulties. Had there been an ocean telegraph, much unpleasant feeling would have been prevented, and the nation saved some hundred thousands of dollars. If the line be well protected by international treaties, upon the principle that private property upon the seas shall be protected by the flag of the nation, even in time of war, then the world may expect an ocean telegraph to be the grandest achievement in the arts and sciences for the amelioration of man.

T. P. S.

Art. III.—THE BANKING AND CREDIT SYSTEMS.

To the Editors of the Merchants' Magazine:—

I HAVE long wished to write an essay for your Magazine on the distinction between the banking and credit systems, but have been deterred by the cool indifference of the public to the currency question, since the revulsion of last fall, which ought to have aroused public attention to the subject, and by an unfortunate disposition I discover in myself to scold about it. With every wish to respect public opinion, I cannot do it—cannot find anything in it to respect upon this subject. I try to smile with all my might, but find a scowl all over me as soon as I take pen in hand to write about it. When I would say the softest thing in the world, I feel that I dogmatize. With this difficulty to contend against, Messrs. Editors, I will, with your indulgence, proceed as gently as I can with the subject that heads our pages.

I know a worthy merchant of inveterate business habits who worked himself almost to a mummy in the pursuit of a gainful trade. Scrupulously punctual to every engagement, and scrupulously honest, he pursued the direct course that all prudent men and fathers and mothers advise, never turning to the right or left from his regular well-accustomed traffic for more than thirty years. Very cautious about bad debts, and very successful in avoiding them, he had accumulated a clear safe balance in July last year, to the credit of his stock account, of $175,000, beyond all contingencies excepting the exchange value of money. Now this worthy man, with all his industry, caution, and integrity, was swept clean dry of his whole estate last fall, simply by the sudden appreciation in the value of our currency consequent upon the contraction of bank loans. In a month, or less, one dollar rose in the market to the *value* of two dollars, and conversely his commodities and his ships fell in *price* 50 per cent, or from two dollars to one dollar. Of course he was in debt, as almost every man in business must be in this country, especially in Massachusetts, where we rarely have more than $5,000,000 of money in the whole State; the only possible mode of doing business being to take notes receivable and grant notes payable, getting the notes receivable discounted in bank to meet the notes payable discounted by others in like manner; repeating the same continually and using no money at all.

He was obliged to pay two dollars of debt, contracted on the former measure of price—the depreciated currency—with one dollar of his merchandise, valued by the new measure of an appreciated currency, as far as it would go; and the balance from his previous accumulations. This took the whole; it was too much for him; his mind gave way, and he is now in an insane asylum, a hopeless maniac.

The fault of this gentleman was that of the great mass of our business men, which bankrupts nearly the whole of them and sustains our present monetary system; he never cared a button for the *science* of his profession. He believed the only mercantile science consists in buying cheap and selling dear; and, with this peddler-achievement and exemplary patience, he expected always to manage, as he had done, successfully, a foreign business requiring three months frequently to countermand his order, and further or check his investments. During the bank contractions and consequent

fall of prices in 1851 and 1854, I observed he declined selling; he held on to his commodities patiently till the banks inflated again and prices rose, when he sold his cargoes and secured his profits. He had no reason to doubt, in his philosophy, that the same result would immediately follow the contraction of last fall. He never bothered his head with the consideration of the power of gold to serve as the basis of inflation of the currency of the world, nor troubled himself with the irresistible nature of self-interest in the debt-currency system to accumulate debt that will command interest, as money, till the obligations of the community to pay money that never existed cannot be discharged.

All this was none of his business; his business was to import hides and wool, and get the most he could for them, and he pursued it faithfully. Unfortunately, it became an essential part of his business to get money when all the money in market was only money by name—when it was debt by nature, requiring to be paid as much and as fast as his own. This was a dilemma—a principle of self-destruction in the currency—a power of eating itself up—not provided for in his plilosophy, and he was ruined.

Now, I find wise men in plenty—men wise after the fact—who think he ought to have sold at a loss on the early decline of the market; but this again was no part of his business; it was his business to sell at a profit, he had always done so and succeeded. Why should he do otherwise? He knew much of the demand and supply of wool and hides, and believed they altered in price only by a deficient or surcharged supply. Money, with him, was a "standard of value;" it always stood still in value except in the rate of interest, while everything else moved. He looked upon the increasing bank currency to be very beneficial, and had no conception that the rise in his hides was really the depreciation of money, and that the bank money was money only in name—that the banks would require real money to pay it at the time when he would most want money himself. In this he did not differ from nine-tenths or nineteen-twentieths of the merchants of this country; they look for the value of money only in the rate of interest, where it is not; the rate of interest having nothing to do with it, excepting to be high when money is low. Thus his fortune, his peace of mind, and the happiness of his family, have come suddenly to an end. Hundreds of others have suffered and are suffering, some even unto death, with broken hearts, under my own observation, from the same cause. I hold the merchants of this country responsible for it all; it is not the fault of the banks.

True, the origin of the evil was with the Bank of England, somewhat accidental I think, but our merchants sustain it to their own destruction, with no possible benefit resulting to the country, but with a loss of $50,000,000 of absolute capital, yearly, and the earnings which so much real capital in gold and silver would accumulate. With a little attention to the science of their profession, and a very simple and easy practical effort, they can reform it all, and leave England and other countries of Europe to enjoy the invention of the Bank of England of organizing debt into currency.

I have not time and space, in a short essay like this, to pursue the history of paper money or bank currency, but I may briefly say that the Bank of England was established as a mere *go-between* or agent to borrow money of the people and lend it to the government in 1694. The sum originally borrowed and loaned was £1,200,000 for an annuity of £100,000,

or £96,000 a year, interest at the rate of 8 per cent, and £4,000 a year for the expense of management. This was legitimate and right; the lenders were the stockholders, and the government was the borrower. At five several periods this operation was repeated for various amounts, with a slight difference between the stock and the government loan, until in 1722 the capital amounted to £5,560,000 nearly, and the loan to government £5,375,000. The bank had, therefore, an unloaned capital of £185,000.

During all this period, the bank issued its notes, received individual deposits and loaned them, but there is no evidence of its having loaned more than it received, and it did a legitimate banking business until 1722. Then, in pursuance of an act of Parliament passed in 1721, it purchased stock of the South Sea Company to the amount of £4,000,000. To enable it to make this purchase it took subscriptions for only £3,400,000.

I do not find the reason stated for this deficiency of subscription, but presume the bank did not intend it. It may be inferred that distrust of the South Sea Company at the time rendered it difficult or impossible for the bank to obtain the full sum of capital to purchase the stock or annuities for £4,000,000. It was in the form of government annuities of £200,000 which were sold to the bank at twenty years' purchase, or at the rate of 5 per cent per annum. About this period the credit of the government was not always, or often, as good as that of private persons.

The capital stock of the bank, therefore, fell short of its loans in the aggregate £415,000; that is, it was deficient in subscription for the South Sea stock £600,000; from which, deduct the previously unloaned capital, £185,000; deficit, £415,000. This sum, then, the bank loaned in its notes and credits more than belonged to it; that is, of the money lodged for safe keeping belonging to its depositors and the holders of its circulation, charging interest on what was not its own. To this deficit it gave the very respectable name of "undivided capital." I think it was an *undivided swindle* upon the people, who did not understand it then, and who have never properly understood it since. The principle of a debt currency, therefore, appears to have had its origin with the Bank of England in the "South Sea bubble," the most outrageous bubble that ever existed. This principle has been extended under the still more agreeable name of "money," and has been constantly disastrous to England and to every other country where it has been adopted. Although property is produced and aggregated in spite of it, that property is robbed from its true possessor and transferred to the capitalist by this iniquitous scheme.

Afterwards, about 1754, the Bank of Amsterdam made a bold experiment of the same sort, rather more honest, because more easily understood. That was a bank of deposit only, and payments were made by transfers from one account to another on its books. It was bound by its principles to keep at all times in its coffers bullion equal to the full amount of claims upon it. About 1754, however, the Burgomasters in direction privately loaned 10,500,000 florins, about $4,200,000 dollars, to the States of Holland and West Friesland, and the Dutch East India Company. When this fact transpired, on the invasion of Holland by the French in 1794, the conduct of the directors, who had kept the transaction secret forty years, met with universal contempt and derision; but the principle was precisely the same as that of the loan to the South Sea Company by the Bank of England in excess of its capital, and of the pre-

sent system in England and here, creating two demand obligations on one value, authorizing both lender and borrower to check upon the same money at the same time, thus increasing and cheapening the currency with mere "promises to pay."

The origin of this debt currency, or bank money, generally called "paper money"—although the deposits are as much currency as the circulation—explains its nature. It is *debt organized into currency* through the agency of a bank, over and above all the money in the world. In its nature it cannot be paid, because it adds itself to the price of property, and consequently to all money obligations, which can only be paid while the currency exists, on the measure of which they were contracted. The contraction of this currency contracts prices and the means of payment, creates a pressing demand for money to discharge the counter debt, and, to discharge itself, an equal demand for money which was never created. While its volume remains entire, it may be exchanged against commodities and may transfer debt, but it cannot make a final payment of debt. If final payment is demanded, either of banks or individuals, bankruptcy alone can discharge the sum required. If the bank gets paid, the deficiency must fall somewhere else in the community, for the money is missing.

I have thus briefly sketched the origin, nature, and effects of the debt currency partly to meet a statement I find in an article on "Banking and Currency" in your August issue, that banking ought not to be considered the cause of the late collapse in the affairs of the commercial world, but that it, and such periodical revulsions, must be ascribed to the general system of credit of which banking forms a part.

I am obliged to differ with the author of that article in this, and also in another, position he assumes, which is, of course, the popular notion upon the subject, namely, that money is the "standard or measure of value."

It is not always easy to determine whether a man is in the habit of getting drunk because he is crazy, or whether he is crazy because he is in the habit of getting drunk. It is clear that the debt banking and very extensive credits exist together, and are mutually dependent. If one causes the other, it is also clear that the father of the other is the father of all the mischief which results from both.

It is certain, to my mind, that money, to buy and sell with, is greatly preferred to debt and credit by most men. This is attested by the constant complaints we hear of the impossibility of doing a cash business, of the necessity of credits, and of such long credits, and also by the frequent attempts at combinations to shorten credits, which, after some eloquent speaking and some very energetic resolves, duly published in the newspapers, end in nothing, of course. The failure of all such efforts is inevitable from the nature of our currency. It is a currency of debt and not of money—it is fed upon, and can only be sustained by, debt, and is debt itself, which "makes the meat it feeds on." The debt currency, then, and the banking, which is the machinery of its manufacture, are the cause of the periodical revulsions in the commercial world. The unstable currency created by banking was plainly the cause of the collapse last fall, that ruined my friend of the wool and hide business, and thousands of others in this country and Europe.

Having adopted banking as our method of producing currency, instead

of applying our gold to the purpose, it is quite impossible to retain money, and business cannot therefore be done strictly for money, except in *small grog and oysters at retail*, the transactions in which are within the specie circle, below the denomination of the one dollar note.

The process by which people are forced to provide promissory notes for banking is perfectly simple; it is by keeping dollars of currency in a little fuller supply, compared with commodities, than other countries. The dollars then become cheaper than commodities, and other countries send us their commodities—take the dollars made of gold and silver and leave us dependent upon those made of paper, which are co-existent with, and can only be produced by, promissory notes. This is a tread-mill operation; a man once *in for it* must step on or break his leg. The bank notes and credit inscriptions having been obtained on a promissory note, that note must be paid; other bank notes and inscriptions must be procured by producing another promissory note for discount to pay it, and so on in an endless round of exchanges with the bank, of debt for debt. As the bank lends no money, only promises, when a compliance with its contract in honest specie dollars is required, the dollars are demanded of its debtors who have none—who never had any. The paper and inscription dollars, of course, can no longer be furnished to them, as the required issue would destroy the bank. The debtors are simply *cornered*. Hence comes the "revulsion," which your contributor on banking and currency attributes to the "credit system." This term appears to have been originally adopted, as language frequently is, to conceal ideas; it is a very innocent looking name for the mischief-working banking system. So people fancy they borrow *credit* of the bank, but the man must be very blind who does not see that the bank note he holds in his hand is the bank *debt* and his own *credit*. He is lending capital to the bank while he holds the note, and the bank is charging him interest on his own capital—took it in advance when the note was issued. It is one of the sophisms of the system—credit sounds so much more pleasantly than debt. Capital and money are tortured in the same way out of all their proprieties by the present banking system.

The "credit system" is well enough; banking would be well enough if this wretched and dishonest principle of debt in the currency were abandoned. It is the very error of the moon to suppose, as many do, that an honest man would find difficulty in obtaining credit under a metallic currency system; he would be altogether more certain of obtaining it; the difference is, he would borrow money instead of debt, and if honest and frugal he would be sure not to fail, which he may be almost sure to do now. Debt and credit would then move harmoniously together, and not get periodically at loggerheads after the fashion of last fall. Debt in trade would be met by stable value in the currency, and could do no harm. Let the banks use *money*, and make their profit out of the difference of interest by lending at a higher rate than they borrow, and the production and export of commodities and all business would materially increase. All would then be well with us on this side of the Rocky Mountains.

As to California, her gold producing afflicts her with a cheap currency, and she aggravates the evil by adding to it bankers' debt, in credit inscriptions, when it was already too cheap before. She must inevitably be glutted with imports, and must suffer the consequences.

We of the Atlantic States have not the infelicity of a naturally cheap currency to contend with, which is the misfortune of California, that must keep her prices higher than non-producing gold countries; otherwise commodities could not be sent there, and she could not export her gold. We buy her gold with the products of profitable labor, beneficial to us in the cultivation of the soil and in the use and improvement of the arts, as we do the gold of Australia or Russia, and the silver of Mexico. It is our folly, not our misfortune, that we do not know it to be better than debt for money, and learn how to keep it.

Our merchants generally think business cannot be done on any other than the present system. Very well, gentlemen; so long as you entertain that opinion, and act upon it, you will grasp wind when you think you grasp wealth. Nothing is more certain than that, if you will use money for the medium of exchange, you will import or retain $50,000,000 of gold and silver annually by exporting $50,000,000 of our domestic products more than you do now, until gold shall be in natural excess in the Atlantic States. It would be an absolute gain of capital for its whole amount, with the profits to be derived from its use; it would increase your business greatly, with an almost entire absence of bad debts; and, so long as the present increase of gold continues, with an almost constant advance of prices.

This brings us to the consideration of the nature of promissory notes, bills of exchange, and ledger balances, unconnected with the debt system of currency. Have they in any degree the effect of currency upon prices? Surely not. Their affinity is wholly with the property from which they are derived, and against which the currency is exchanged. They are merely a postponement of the money operation, from the time of the purchase to the maturity of the obligation. Money that would have been required at first will be required at last, to accomplish the exchange, and if the money is not then sufficient for the purpose, prices fall until it is sufficient, the same as if the commodity purchased had then been presented in the market for the first time.

I do not see why, with a currency of gold and silver, there should necessarily be any more competition in purchases on time than in buying for money, nor any more tendency to advance prices, because the constant maturing of notes would hold prices in check. On the contrary, I think repeated transfers of the same commodity on credit would frequently average payments for the same thing on one day, and have the same effect as repeating the supply of the commodity itself upon the relative value of money, which, of course, would be to reduce prices. Obviously, the more commodities there are thrown upon the market the lower will be their price, and therefore the higher relatively the value of money. The effect would be the same if several notes for repeated sales of the same commodity should cause a demand for money on the same day. But I do not insist upon this—it belongs to one of the most critical questions of political economy—the power of the "rapidity of circulation," or, as J. Stewart Mill suggests, the "efficiency of money." I wish only to establish the fact that the common evidences of debt, apart from bank notes and balances, belong on the side of commodities, and opposite to currency, in their effect upon prices and upon the value of money. They would have no disturbing influence in commercial or financial affairs more than the commodities from which they are derived,

if not discounted, by our present system; or whether discounted or not, with a system of sound currency, where true value would be obtained at every exchange of the obligation. With a metallic currency, or what amounts to the same thing, a system of certificates, coin being retained against all issues, bills and notes might be discounted or transferred any number of times without increasing, or in any degree affecting, the volume or the value of the currency.

I am aware that I differ from other writers on this subject; but I cannot accept any authority opposed to my own practical observation as a merchant, and my own common sense, which teach me clearly that promissory notes are in their nature merchandise more than currency. They make demand upon currency or money to transfer or pay for them, precisely like the commodities from which they arise, with only a postponement of time.

The credit system, unconnected with debt banking, is in no respect chargeable with the financial revulsions that so frequently disturb the commerce and comfort of the world, and most especially of this country. This suffers more than any other country, and more frequently, from the excessive proportion of our banking to our business, its excessive competition among 1,400 banks, and its irrepressible *wild-cat* character. All the world over, the bankruptcies in trade, defalcations in pecuniary trusts, commercial lying and cheating, are in proportion to the expansion of this debt system of currency. Here, where we bank down to the denomination of the one dollar note, and set all our property flying upon what Adam Smith calls the "dedalian wings of paper money," the aggregation of commercial villainies, great and small, has become immense. Failing to make money—the negative fact of not succeeding—is immediately followed by the positive operation of making money by failing, which is the tolerably well understood profession of some men, in which they succeed remarkably well.

All this is inevitable from the operation of a system which alters the value of money, *presto*, by the sudden and unavoidable change of policy by the banks, from what is called accommodation to contraction—*the application of the screw*. Many honest men are driven by this to subterfuges that their souls abhor, to secure to their families for a brief period their daily bread. It is not always that they recover the self-respect necessary to restore them to the true position of moral honesty. I think the immoral influence of our banking system is a matter more deserving attention than the pecuniary evils it brings upon the community, and these are quite insufferable. Yet I do not quarrel with the banks for this. Public opinion, or rather public ignorance, sustains the abnormal system, and the public is responsible for its existence and its evils. Any business required by the public is a legitimate object of money-making, and may and will be pursued by worthy men. The haberdasher furnishes hoops and crinoline, and an amplitude of silk and satin outside drapery for all this frame-work, which cause many a husband and father to wince at the foot of the bill. Thus the handsomest thing in the world—a handsome woman—is converted into the ugliest—an exaggerated demi-john. Shall I blame the haberdasher? Surely not.

It was originally a trick in political economy of the Empress Eugenie, to bring about an increased demand for French goods. Who believes that she felt any delicacy about carrying an heir to the Imperial throne

under her belt, or wished to disguise the appearance of it, as has been suggested? She was a shrewd political economist in this measure. It succeeded. It is sustained here by the folly of our women, and the neglect of our men in not resisting as an indignity this system of fencing off —this being kept at an unnatural and unreasonable distance. Eugenie was the Bank of England of this system of female folly and extravagance which has overtasked the silkworms of France and China for several years past. I do not quarrel with the haberdasher for turning it to profit, and making the most he can out of it.

Nor do I blame the banks. The public, having become possessed with the idea that my note may be made money by the authority of a State Legislature, and being willing to accept it as such, granting me security that they will provide the means of payment, and pay me interest on it as money, is it to be supposed that I will hesitate to avail myself of the privilege? The same conceit being entertained of the notes of 14,000 or 540,000 individuals—I have no conception how many directors and stockholders of banks there are in this country—and the same privilege being granted to all these people of taking interest on their bills payable, without lending a dime of value for them—who doubts that they will issue them till they steep the community in debt to the very lips? and how is such an ungainly power to be controlled? I answer by public opinion—by throwing light upon the subject—and by the action of some good men and capitalists who will establish a "BANK" that is not a "*debt factory*," and show practically to the self-deluded public the difference between them.

I think there is not one man in a hundred, borrowing currency of the bank, who does not imagine he is borrowing money; nor one in a thousand, perhaps, who is aware of the truth, that he borrows only his own credit in the debt of the bank, and that he must furnish the bank the means to pay with, or its debt cannot be paid. Such is the fact, however, with this debt principle in the currency: it is a mutual borrowing of notes between the bank and its customers—mere kiting.

Now, if a third party gets possession of the liabilities of the bank, and demands coin for them, or even the debtor himself before the maturity of his counter debt, how can they be paid? They were in the first place obligations to pay dollars of gold over and above any dollars in the country. They usurp and occupy the place of so many real dollars among the people, which are thereby forced abroad, as I have before stated; and such demands can be answered only in bankruptcy, because prices, and consequently the means of payment, fall as soon as the demand takes place; and they continue to fall in advance of the demand for money. Thus commodities are forced upon a reluctant market; sellers become plenty and anxious, buyers few and indifferent, and a general stampede of prices and general destruction succeed. These are the sure effects of a bank contraction, more or less, according to its extent; and it produces about five dollars of bankruptcy for every dollar of contraction, depending upon the average number of sales of commodities between the producer and consumer, which with a money currency would be made for cash. I think the transfers of commodities from the raw material to the consumer average five that are made by our system on credit.

I have but a few words to say of the "standard of value," having before explained the matter in your pages. There is no such thing; for

the value of money fluctuates as it is thrown upon, or withdrawn from, the market, precisely like every other commodity. Money forms the price of things, because it is the medium of exchange, and may be called the measure of price, but it is not the measure of value.

Potatoes measure the value of dollars, as dollars measure the value of potatoes. Reciprocally, every commodity measures the value of every other commodity in relation to itself, money included, and money is but a commodity that does the same thing. Add to, or deduct from, the supply of dollars in proportion to the demand, and more or less dollars must be given in exchange for other things. Add to, or deduct from, the supply of potatoes, and more or less potatoes must be given in exchange, by the same rule. As gold increases in quantity, other things remaining as before, it falls in value, and the dollar, which is but a component part of an ounce of gold, falls with it. And an increase of bank dollars, they being used as equivalent to gold dollars in the currency, depreciates the value of dollars and of gold also. Conversly, the value of gold and of the currency is increased by the reduction in quantity of gold or of convertible bank money. I need not enlarge upon this, it being the principle of value that I demonstrated in a former communication, showing the distinction between value and price.

From these considerations, the conclusion follows that there is a wide distinction between the debt banking and credit systems: they are unnaturally connected—paired, not matched—and the unholy alliance is constantly spawning a bastard progeny of debt, called by the attractive name of "money," which is unmingled evil.

If the commercial world had been content with the natural volume of a metallic currency, since the gold discovery in California, the late dire calamity in commercial affairs would have been an impossibility, whatever superficial thinkers may say upon the subject. There would have been a constant average advance of prices of two to three per cent per annum, benefiting debtors by making it easy to pay debts, and causing no loss but to those who are able to bear it—the capitalists with fixed-interest investments—excepting only the limited class of small annuitants.

The law of value is as constant in its operation as the law of gravitation, and must precipitate money, like water, from the higher to the lower level of volume, however imperceptible the difference of level may be to ordinary observers. Had we kept our money more valuable than the currencies of Europe, by abstaining from adding bank dollars to our dollars of gold, we should have had continued prosperity, all the more for the inflation in Europe, as long as Europe was not our debtor, rendering us liable to lose by her defalcations.

It will be ascertained, at no distant period, that political economy, though obscured at present by imperfect development, and consequent error in doctrine, is as exact in its conclusions as the science of mathematics.

C. H. C.

Art. IV.—COMMERCE OF GREAT BRITAIN.

DECREASE IN EXPORT VALUE—OFFICIAL VALUE—DECLARED VALUE OF IMPORTS—IMPORTS AND EXPORTS—SPECIE EXPORTS—RETURNS OF SPECIE IMPORT—BALANCE OF TRADE—INCREASE OF WEALTH—COLONIES—SLAVE TRADE—WAREHOUSES—STOCKS OF PRODUCE—IMPORT AND PRICES OF GRAIN—FLUCTUATIONS—PRICE PER BUSHEL—AVERAGE OF WHEAT—CROPS OF FRANCE—DEPENDENCE FOR FOOD—COFFEE AND SUGAR, DUTIES ON—USE OF SUGAR IN FRANCE, GREAT BRITAIN, AND UNITED STATES—BEET-ROOT IN FRANCE, DUTIES ON—ENCOURAGEMENT OF—LOUISIANA SUGAR—IMPORTS, TEA AND TOBACCO—DUTIES ON TEA—TOBACCO CHARGES—DRAIN OF SILVER TO THE EAST—REDUCTION OF DUTIES NOT ALWAYS INCREASES CONSUMPTION—PROPOSED DUTIES ON TOBACCO—OPERATION OF DUTIES—IMPORTS, RAW MATERIALS—COTTON, EXPORT OF—DESTINATION OF—GENERAL EXPORTS—COLONIAL TRADE.

A MARKED feature in the commerce of Great Britain from the Peace of Paris, in 1815, down to the abandonment of the protective principle in 1842, was the continued decline in the real value of exports, as compared with the official values. The latter, being values as far back, in most cases, as the time of Cromwell, came to represent rather comparative quantities than values; and as both real and official values were given, the constant comparative decrease of the former, indicated the decline of prices under the various influences of a return to specie payments, falling prices of food, multiplied improvements in the arts and sciences, and the sharp competition of European industry, let loose from the oppression of long wars. The decline in values thus exhibited, reached over fifty per cent. It was not, however, until 1854, that the real value of imports was ascertained officially. The quantities only at the old official values were previously given. Since then, the annual imports and exports have been as follows:—

	Imported.	Exported.	Excess, Imports.
1854.....	£152,389,053	£97,184,726	£55,204,327
1855.....	143,542,850	95,688,085	47,854,765
1856.....	172,544,154	115,826,948	56,717,206
1857.....	187,646,335	122,155,237	65,491,098
Total for four years.....	£656,122,392	£430,854,996	£225,267,396

Here we have an excess of imports over exports, to the enormous extent of £225,276,000 in four years. In the same time, £99,833,511 of gold and silver bullion and specie were exported. The amount imported was probably larger, although it is not officially ascertained, no account of the import of these articles having been kept by the Board of Trade until the commencement of this year.

For the first four months of the present year, the imports and exports were as follows:—

	Gold.	Silver.	Total.
Imports	£9,071,658	£2,743,306	£11,814,964
Exports.....	3,324,158	3,174,856	6,499,014
Excess of imports	£5,747,500	.....	£5,315,950

Thus, after an excess of imports in four years equal to fifty per cent of the whole exports, there is an apparent balance in favor of England, which enables her to increase her specie reserve. This fact is a stumbling-block in the way of those who seek, in a "balance of trade," the causes of a commercial revulsion. On their face, the figures show a very great increase of wealth, since England has, in four years, obtained £225,000,000 worth of property more than she has sent away. A good deal of the received wealth, no doubt, arises from the *exploitation* of the colonies, although this item is not now so great, by far, as under the slave trade.

Then vessels would fit out for the coast of Africa with calicoes, gewgaws, and articles of small value, which would be exchanged for negroes, which, being carried to the East Indies, were converted into rum, sugar, and coffee, that figured largely in the imports into England. The ample warehouses of England are the storehouses of the world, and the large capital of England is employed in holding vast stocks of colonial and other merchandise which are ready for home or foreign uses according to exigencies.

A considerable item in the imports of Great Britain is composed of food, of which her wants annually increase. The average importation of all kinds of grain for the last ten years, has been no less that 8,745,250 qrs., of which upwards of one-half was wheat and flour. Previous to 1847, not a third of this quantity was required on an average. The inference is drawn that the products of English soil are diminishing in proportion to her wants. The following table shows the quantity of grain imported annually, with the official average annual prices for the last ten years:—

	Wheat, qrs.	Grain, (oth. kinds,) qrs.	Flour, cwt.	All kinds flour & grain, qrs.	Wheat, s. d.	Barley, s. d.	Oats, s. d.
1848.....	2,500,000	4,500,000	2,000,000	7,528,472	50 6	31 6	20 6
1849.....	4,000,000	6,000,000	3,500,000	10,669,661	44 3	27 9	17 6
1850.....	3,750,000	4,250,000	4,000,000	9,019,590	40 3	23 5	16 5
1851.....	3,750,000	4,250,000	5,500,000	9,618,026	38 6	24 9	18 7
1852.....	3,000,000	3,500,000	4,000,000	7,746,669	40 9	28 6	19 1
1853.....	5,000,000	4,000,000	4,500,000	10,178,135	53 3	33 2	21 0
1854.....	3,500,000	3,500,000	3,750,000	7,909,544	72 5	36 0	27 11
1855.....	2,500,000	3,000,000	2,000,000	6,278,813	74 8	34 9	27 5
1856.....	4,000,000	4,000,000	4,000,000	9,339,425	69 2	41 1	25 2
1857.....	3,500,000	5,000,000	2,250,000	9,169,180	86 4	42 1	25 0

This quantity and prices gives a value of over $120,000,000 per annum, which England pays for food. It will be observed that in 1855, when the prices were highest, she imported the *least*, because in that year the crops of those countries on which she depends for supplies were also short, and could not spare her the usual quantities, although she bid as high as $2 per bushel for wheat. In 1853, she obtained 48,000,000 bushels of wheat at $1 60 per bushel; but although she offered $2 per bushel in 1855, she got but 25,000,000 bushels. This is an important fact, coupled with the fact that France and the countries of Western Europe are annually able to spare less. The dependence upon foreign countries for food would seem to be a matter of anxiety in this light. The consumption of other articles of food, besides grain, has increased to an extraordinary extent under the general system of reducing duties and the cost of materials. The import and consumption of coffee and sugar for the same period of ten years has been as follows:—

	Coffee, (all kinds.)			Sugar, (raw.)		
	Imported, lbs.	Exported, lbs.	Consumption, lbs.	Imported, cwts.	Exported, cwts.	Consumpt'n, cwts.
1848.....	57,053,450	24,088,477	37,077,546	6,869,931	332,569	6,142,296
1849.....	63,315,517	34,552,083	34,399,374	6,937,349	558,642	5,905,687
1850.....	50,803,152	12,169,752	31,166,358	6,291,535	370,415	6,091,492
1851.....	53,110,660	22,712,859	32,504,545	7,932,534	308,605	6,233,540
1852.....	54,935,510	12,937,552	34,978,432	6,896,761	415,340	6,898,867
1853.....	55,634,733	26,656,892	36,983,122	7,284,290	252,074	7,272,833
1854.....	66,500,358	32,589,117	37,300,924	9,112,364	369,031	8,028,758
1855.....	64,061,479	28,766,528	35,764,564	7,324,133	227,040	7,259,148
1856.....	56,992,116	27,602,836	34,995,944	7,761,240	740,012	6,813,470
1857.....	58,892,726	15,782,710	34,367,484	8,390,696	300,098	7,114,888

In 1844, the duties on sugar had been 25s. per cwt. on colonial, and 66s. on foreign. In 1845, the former was reduced to 14s., and the latter, being free labor, to 23s. 4d. In 1846, all foreign sugar was admitted at 20s., without distinction of origin. In 1850, 1851, 1852, and 1853, successive reductions took place, and in 1854–55, some duties were added as war charges. They are now as follows:—

	Refined, s. d.	White, s. d.	Brown, s. d.	Other, s. d.
1857.....	20 0	17 6	15 00	13 6
1858.....	18 4	16 0	13 10	12 8

The duty on brown sugar imported into France from the colonies is $3 24 per cwt., and foreign sugar $4 91 per cwt.; if in foreign vessels, $6 29 per cwt. In the United States sugar is 24 per cent ad valorem.

CONSUMPTION OF SUGAR IN GREAT BRITAIN, FRANCE, AND UNITED STATES.

	FRANCE.					UNITED STATES.		
	Colonial, tons.	Foreign, tons.	Beet-root, tons.	Total, tons.	G. Britain, tons.	Foreign, tons.	Louisiana, tons.	Total, tons.
1841..	74,515	12,042	27,162	114,719	203,200	65,601	88,000	103,606
1842..	77,443	8,210	35,070	110,723	193,823	69,474	39,200	108,674
1843..	79,455	9,695	29,155	118,215	204,016	28,854	64,360	93,214
1844..	87,382	10,269	32,075	129,626	206,000	83,801	44,400	126,206
1845..	90,958	11,542	35,132	137,632	242,831	88,336	45,000	133,336
1846..	78,632	15,185	46,845	140,662	261,932	44,974	83,028	128,002
1847..	87,826	9,626	52,369	149,821	290,275	98,410	71,040	169,450
1848..	48,371	9,540	48,103	106,014	307,114	104,214	107,000	211,214
1849..	63,385	18,979	43,793	126,107	295,284	103,121	99,180	202,301
1850..	50,996	23,862	67,297	142,155	304,574	84,813	110,600	194,413
1851..	.....	.....	74,999	.....	311,677	190,193	102,060	272,193
1852..	82,030	14,882	67,445	114,357	344,943	228,772	118,273	347,045
1853..	82,841	15,044	87,120	135,005	363,641	232,213	160,967	393,180
1854..	40,113	18,943	85,825	144,981	401,437	227,982	224,662	452,644
1855..	45,373	49,822	52,902	148,097	362,957	236,942	173,317	410,259
1856..	46,767	16,456	95,103	158,326	340,673	272,631	115,713	388,344
1857..	42,466	25,689	*132,000	200,155	355,719	388,501	36,933	425,434

The consumption of sugar in Great Britain has increased at least as fast as in the United States and in France, where the production of beet-root sugar appears to be more reliable, as a crop, than that of the cane sugar of the United States.

France was the first country in which the cultivation of the beet-root became important, and in 1828 the production of sugar from it was about 7,000 tons. The tax levied by France on its colonial sugars was 50 francs per 100 kilogrammes, say $4 84 per cwt., and no tax was imposed upon the beet-root sugar. The important difference of nearly four-and-a-half cents per pound operated as a great stimulant to the use of the beet-root sugar, and induced the extensive cultivation of the root, and large investments in the machinery for its manufacture. The consequence was great injury to the colonists, and loss of revenue to the government. The former, justly alarmed, energetically demanded the entire suppression of the beet cultivation, and the purchase of the interest by the government. This the government could not listen to, but the loss of its revenue induced it to favor the colonists. Some years elapsed before the matter was settled. That state of suspense prevented any extension of the beet sugar manufacture, because no one would invest in a

* To close of February.

business that might be stopped. In 1843, a law was passed imposing a tax upon the beet sugar, to be annually raised, until, at the end of five years, it was to bear the same tax, say 49f. 50c. per kilogramme, as the colonial. The matter being thus settled, the beet cultivation, although exposed to this onerous tax, began to grow. The tax had the effect of stimulating improvement in the mode of extracting the sugar, and the production increased rapidly until 1848. The political troubles of that year had a great influence, but the rumor that a very simple mode of extracting sugar had been discovered, by which every household might make its own, and by which the expensive machinery used would become valueless, checked investments. Those fears were found to have been much exaggerated, and in 1850 the production resumed its increase. In 1851, the hardships of the colonies, under the abolition laws of the Provisional government, added to the diminished revenue, induced the government to maintain the beet sugar tax, and reduce that on cane sugar. Accordingly, on the 1st January, 1852, the duty was changed as follows:

Duty on beet-root sugar per 100 kilogrammes.....francs	50
Duty on French West India sugar per 100 kilogrammes.....	44
Duty on Bourbon sugar per 100 kilogrammes	41

The lower charge on Bourbon sugar is supposed to compensate the longer voyage it undergoes. In 1856, colonial and beet-root were both again charged 50 francs per 100 kilogrammes. It is not impossible, however, that the present government of France may, in the more liberal and economical policy of which it shows signs, seek to enhance its revenues by following the enlightened example of England in diminishing its taxes. The consumption of foreign sugar in France gained on that of French production in the three years ending with 1851. In the last three years, during which the price of cane sugar has ruled so high, the production of beet sugar has undergone a great development, notwithstanding the high prices of food, which, indeed, were partly ascribed to the breadth of land taken up in beet roots. The loss of the Louisiana crops, which form so important a portion of the United States consumption, gave a great impulse to the rise in cane sugar, and no doubt partly checked the consumption of it in England.

While sugar has shown so great an increase in consumption in Great Britain, tea and tobacco have also been in great demand. The movement has been as follows:—

	TEA.			TOBACCO.		
Years.	Imported, pounds.	Exported, pounds.	Consumption, pounds.	Imported, pounds.	Exported, pounds.	Consumpt'n, pounds.
1848...	47,774,755	3,551,528	48,734,789	34,090,360	10,075,121	26,987,618
1849...	53,459,469	4,845,617	50,021,576	42,098,125	14,992,277	27,348,419
1850...	50,512,384	5,015,629	51,172,302	35,166,358	7,250,888	27,387,960
1851...	71,466,421	4,524,597	55,949,059	31,049,654	12,748,822	27,705,687
1852...	66,360,535	6,134,743	54,713,034	33,185,035	9,673,396	28,218,857
1853...	70,735,135	4,836,009	58,834,087	40,670,032	9,025,727	29,348,568
1854 ..	85,792,032	8,655,955	61,953,041	32,492,848	11,209,843	30,165,642
1855...	83,259,657	13,726,507	63,429,286	36,320,846	8,437,096	30,114,730
1856...	86,200,414	5,718,764	63,278,212	44,809,634	10,468,456	32,163,962
1857...	64,498,989	8,707,571	69,130,462	42,048,830	10,577,372	32,428,066

The increased use of tea is very marked, particularly since 1852, partly by reason of the large reduction in duties which have taken place. The use of tea and sugar seems to have gone hand in hand, to the exclusion of coffee, of which the weight per head used has declined, while

that of tea and sugar has largely increased. The duty on tea was 1s. 9d. per pound in 1857, and is now 1s. 5d. per pound. The great increase in the use of tea has, no doubt, been one cause of the large drain of silver to the East. It cannot, however, be said that the reduction of duties on any one article is the direct cause of the enhanced consumption of that article, since the great increase which has taken place in the use of tobacco, under a very onerous duty, indicates that a general improvement in the means of the people induces an improved demand for certain articles, and not for others. The general principles on which the great reductions of duties were commenced in 1842 was, that by lessening the money price of all those articles which are purchased by the recipients of wages, virtually enhanced those wages, although their sum remained the same in money. If a man earns 20s. per week, and expends 10s. for wheat, sugar, tea, rum, and tobacco, he will have the same quantities of these articles, and 3s. to spare, if their prices are reduced an average of 30 per cent. It does not follow, however, that he will in consequence buy more of each of these articles. He may spend the extra 3s. in clothing, or some other articles conducive to comfort, or he may buy more tea or tobacco, and less coffee. Hence, the consumption of tobacco has enhanced in face of continued high duties. These being now 75 cents per pound on tobacco worth 12 cents in bond, or over 600 per cent, and in consequence of the enhanced consumption at this high rate, it is proposed to raise the duties 6d. per pound, which it is estimated would give $4,000,000 of additional revenue. With this enhanced consumption of articles of food, there has been a great increase in the quantities of raw materials required for consumption, as follows:—

	COTTON.					
Years.	Imported, pounds.	Exported, pounds.	Consumption, pounds.	Silk, raw, pounds.	Wool, pounds.	Flax, tons.
1848..	713,020,261	660,891	712,359,270	4.500,000	71,000.000	730½
1849..	755,469,012	882,978	754,686,034	5,000,000	77,000,000	903½
1850..	688.576,861	914,908	667,661,953	5,000,000	74,500,000	912
1851..	757,379,759	999,825	756,379,934	4,500,000	83,500,000	597
1852..	929,782,448	998,967	928,783,431	6,000,000	94,000,000	705
1853..	895,278,749	1,326,515	893,952,224	6,500,000	119,500,000	942
1854..	887,333,104	1,101,126	886,231,978	7,500,000	106,000,000	656
1855..	891,751,952	1,119,430	890,632,522	6,500,000	99,500,000	647
1856..	1,023,886,304	1,309,472	1,022,576,832	7,500,000	116,500,000	843½
1857..	969,318,896	1,077,925	968,240,971	12,000,000	130,000,000	933

Cotton has increased nearly 50 per cent; silk nearly 80 per cent; wool nearly 90 per cent; flax has varied greatly, but has, in the long run, increased. The whole shows a very great increase in the use of those raw materials wrought up into fabrics for export by those who have so greatly enhanced the use of food. The quantities of goods that have been produced in the past few years, under the impulse of credit sales on new machinery, have been more rapid than the slow production of raw materials, on which high prices operate only upon labor employed, and can neither increase its volume nor quicken the fertility of the soil. A slight increase in the speed of existing machinery will consume a much larger quantity of material, but the process of nature in producing that material cannot be hastened. It has resulted that prices of materials have been forced very high, and the stocks reduced to a very small quantity, compared to current consumption. The production in the last six months has been violently checked, thus giving materials a chance to come up, but the deficit is large according to future promise.

Tobacco consists of the *dried leaves* of several species of plants belonging to the genus *Nicotiana*, which, excepting the frigid zones, grows nearly all over the world, and it is doubtful when civilized nations first became acquainted with it. When Columbus arrived at Cuba in 1492, he found the natives smoking an instrument which they called *tabac;* this was easily translated into good Castilian, *tabacco.* The name, however, is variously attributed by different inquirers into its origin. "It has," says Dr. Paris, "suffered romantic vicissitudes in its fame and character, it has been successively opposed and condemned by physicians, condemned and eulogized by priests and kings, and proscribed and protected by governments; whilst at length this insignificant production of a little *island*, or an obscure district, has succeeded in diffusing itself through every climate, and in subjecting the inhabitants of every country to its dominion." The little island *Tobago*, here referred to, was for a long time supposed to have given origin to the name of tobacco. Afterwards, with still greater similarity of name, the province of *Tabaco*, in Yucatan, was fixed upon. It is said to have been smoked on the ratification of a treaty between the Europeans and casique of Tobasco or Tabaco, in 1518; hence this was also deemed a good origin for its name. But the Hindoos, Persians, and Chinese have used tobacco from an era so remote as to have no fixed date, and Humboldt, in his Personal Narrative, states that the natives on the Orinoco have cultivated it from time immemorial. So that, taking the greatest license, an old English author refers it to *Bacchus!*

> "*Tobacco*, as Τω Βαχχω one would say,
> To cup god *Bacchus* dedicated, ay."

Certain it is, however, that it was not introduced into Europe until the latter part of the fifteenth century, and that smoking was not general until after the discovery of America.

About the year 1560, Joan Nicot, being at that time the French ambassador at the court of Lisbon, transmitted some tobacco seeds to Catharine de Medecis. From this circumstance it was for some time called Herba Reginæ and the Ambassador's Herb, but finally Nicot's name was honored by the name of the genus of plants to which it belongs—*Nicotiana*—though not without a strong competitor for the honor. Cardinal Santa Croce, being the Pope's Nuncio in Portugal at the same time that Nicot was ambassador, he took both seeds and tobacco plants with him to Italy, and there it was named *Santa Croce*, in honor of the great exploit—which was considered to shed as much luster on the Santa Croce family as the deed of his progenitor in carrying *back* to Italy the wood of the true cross.

The virtues ascribed to the plant at that time by Santa Croce, and those who honored him by its use, are well recounted in some Latin verses by Castor Dervanti, a famous poet of the day, of which the following version is given in an old English dictionary:—

> "The herb which borrows Santa Croce's name,
> Sore eyes relieves, and healeth wounds; the same
> Discusses the king's evil, and removes
> Cancers and boils; a remedy it proves
> For burns and scalds, repels the nauseous itch,
> And straight recovers from convulsion fits.
> It cleanses, dries, binds up, and maketh warm,
> The headache, toothache, colic, like a charm

It easeth soon ; an ancient cough relieves,
And to the reigns, and milt, and stomach gives
Quick riddance from the pains which each endures ;
Next the dire wounds of poisoned arrows cures ;
All bruises heals, and when the gums are sore,
It makes them sound and healthy as before.
Sleep it procures, our anxious sorrows lays,
And with new flesh the naked bone arrays.
No herb hath greater power to rectify
All the disorders in the breast that lie,
Or in the lungs. Herb of immortal fame!
Which hither first by Santa Croce came,
When he, (his time of nunciation expired,)
Back from the court of Portugal retired ;
Even as his predecessors great and good,
Brought home the cross, whose consecrated wood
All Christendom now with its presence blesses,
And still the illustrious family possesses
The name of Santa Croce rightly given,
Since they in all respects resemble heaven,
Procure as much as mortal men can do,
The welfare of our souls and bodies too!"

In England, during the reign of King James I., many persons spent enormous sums—over five hundred pounds per annum—in the purchase of tobacco. And the quaint old Burton writes :—"Tobacco, divine, rare, super-excellent tobacco, which goes far beyond all other panaceas, portable gold, and philosophers' stones, sovereign remedy to all diseases. A good vomit, I confess, a virtuous herb, if it be well qualified, opportunely taken, and medicinally used, but as it is commonly abused by most men, which take it as tinkers do ale, it is a plague, a mischief, a violent purger of goods, lands, and health ; hellish, divelish, and damned tobacco, the ruin and overthrow of body and soul."

Finally, the use of tobacco having become universal among the common people, a royal "counterblast to tobacco" was published against a custom "loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and, in the black, stinking fume thereof, nearest resembling the horrible Stygian smoke of the pit that is bottomless."

The same monarch, King James, proposed as a bouquet for the devil, a loin of pork, and a poll of ling and mustard, with a pipe of tobacco for digestion. He endeavored to abolish its use by a heavy penalty, and enacted that no planter in Virginia should cultivate more than one hundred pounds of it ; but the advantage derived to his revenue from its importation soon caused the restriction to be abolished.

Before King James' time, during the reign of Elizabeth, an edict was published against the use of tobacco, "lest Englishmen should become like the barbarians from whom its use was derived."

There is still a legal restriction in Great Britain against its cultivation, except in a physic or university garden, or in any private garden for physic or surgery, where not more than half a pole—two yards and three-quarters—is allowed.

But it was not alone in England that war was waged against tobacco, when it came within the means of the peasantry. In 1590, Shah Abbas prohibited its use in Persia, and as the punishment was penal many of his subjects fled to the mountains rather than abandon it.

Pope Urban VIII. excommunicated all snuff-takers who committed the heinous sin of taking a pinch in church. In 1653, all the smokers in the Canton of Appenzel were cited before the council and punished. About the same period, the peasantry of Russia were forbidden to smoke under the penalty of having their noses cut off; and Amurath VII. rendered it a capital offence. The animosity of the Russian government was so great against the use of tobacco that a special tribunal, the *Chambre au Tabac*, was constituted for the punishment of smokers; this was continued until about the middle of the eighteenth century. At the present time the Russian peasantry are probably the greatest smokers in the world. In Constantinople, every Turk who was found smoking was punished by having a pipe transfixed through his nose, and seated on an ass, with his face towards the tail, conducted in ridicule through the streets.

Varieties.—The uses and abuses of tobacco have been so severely tried as finally to have become the universal right of man. However applied to the human constitution, it imparts its active propensities. Chewing, smoking, and snuffing all alike communicate its effects, and either may become a necessary luxury.

In an article of such universal use and value it is not surprising that numerous adulterations have crept into the manufacture of its several preparations. What these are and their effects on the system, and the best means of detecting them, is therefore of much moment to all individual consumers, as "Pig-tail," "Bogie," "Alloa," "Cavendish," "Short Cut," "Returns," "Birdseye," "Fanny Fern," "Negro Head," &c., "Havanas," "Lucias," "Principes," "Kings," "Queens," "Cheroots," &c., "Scotch," "Irish," "Welsh," "Grand Cairo," "Rappee," "Cephalic," "Grimstone's-eye," &c., &c., *all* sometimes contain worse things than tobacco.

Adulterations and their Constitutional Effects.—The most common adulterations are, in TOBACCO, the leaves of dock, rhubarb, cabbage, potato, decayed moss, brown paper or mill-board, sugar, terra japonica, nitrate of potash, *alum*, *carbonate of potash*, *common salt*, nitrate of ammonia, muriate of potash.

In SNUFF, those articles marked in italics, and in addition, oxide of iron and alumina, chrome yellow, or chromate of lead, lime, bichromate of potash, oxide of lead, silica, powdered oris root, savory, rosemary, lavender, red ochre, yellow ochre, and various powdered vegetable substances which cannot be isolated.

In CIGARS, hay, and paper tinted of a bister color, constitute the chief adulterations; traces of opium have sometimes been found in cheroots, but not in quantities nor frequency sufficiently often to justify its alleged commonness. Cigars are undoubtedly the purest form of tobacco, even though the tobacco be poor. The various qualities of tobacco adaptable to cigars, in a great measure obviate the temptation to add foreign substances to it; while of these—hay and paper—they only lessen the quantity of tobacco without injury to the system.

Snuff, on the other hand, is the most injurious form of using tobacco, and this arises from the poisonous character of the adulterating substances; otherwise it would be the least injurious, because it is applied to a smaller extent of the mucous membrane, and where its effects are chiefly local. Nevertheless, the sense of smell is impaired, and frequently also the sense of taste; but these effects are attributable to the irritation and subsequent

congestion of the lining membrane of the nose and fauces by the alkalies and salts, and the still more poisonous *chromates* which enter into the composition of snuff. The bichromate of potash is a potent poison. One twenty-fifth of a grain is usually fatal to a dog, and even the smallest portions are generally followed, sooner or later, by inflammation of whatever part to which it may be applied.

The chromate of lead, and red lead, are also of very poisonous nature, though not to the same degree as the chromate of potash. These are the substances, also, which are so often fatal to children fed on candy. The quantity of chromate of lead and red lead in snuff is often found to be four or five per cent, and there are numerous instances of *paralysis* and *lead-cholic* in snuff-takers, clearly attributable to the poison obtained from this source. The less severe effect of these poisons is *habitual constipation*, which is never the effect of pure tobacco, and rarely attends those who use it in other forms. Inflammation of the nerves, neuralgias in various parts of the system, cholera-morbus, and other affections which are common to most irritants taken into the system, are frequent diseases of snuff-takers.

Tobacco-chewing, next to snuffing, is most injurious, and would doubtless be equal to snuffing were it not for the usual habit of expectoration. The active principles of tobacco are taken into the system to greater extent in chewing than in any other way, and the injurious effects of *it* are oftener found in those who chew than in others. The common adulterations in chewing tobacco are such as principally give it bulk and weight, excepting alum, terra japonica, and lead, which may be suspected whenever a chewer has constipated bowels. The last of these substances, lead, is sometimes introduced by means of lead foil instead of tin, for wrappers.

The most usual *fraud* among tobacco dealers is *moisture*, which has the effect of augmenting the weight.

Constitutional effects of Tobacco.—Tobacco smoking exemplifies in a peculiar manner the effects of tobacco, because, as a general thing, other substances do not find their way into the system with it. The first effect of tobacco is slight excitement, but this exists for a brief period only, and is then followed by a peculiar tranquility which pervades the whole system. The action of the heart is diminished, respiration seems to be carried on with an unusual smoothness, and a general *luxuriousness* of feeling pervades—even the skin softens, or, if smoking is carried to excess, grows moist; the involuntary muscles are relaxed, and the usual effect of a morning cigar after breakfast is experienced.

In plethoric persons, those who have an abundance of red blood, and who so live as to keep up the supply, and whose digestive functions are active, the effects of tobacco are salutary and may be indulged. But those who are of contrary temperament, whose circulation is weak, whose digestion is slow, these are not benefited, but injured, by the use of tobacco.

Nervous and irritable persons, those whom business excites, who are always impatient for results, and constantly exercising their brains in divining new inventions and enterprises, but who are impatient to adopt them, these are benefited by the tranquilizing effects of tobacco.

Deep thinkers, who would draw upon resources long laid up by hard study, who would not again busy themselves in thumbing over volumes which have

already been read, but who, having once devoured them, would make the food their own, find much originality amidst the fumes of a savory cheroot. But students, who would master books, and remember their contents, who would lay up in store clear ideas, should never becloud themselves with smoke, nor in any other way detract from the most energetic application to the fulfillment of the object in view. The satisfying effect of tobacco on students is not calculated to promote advancement, but to retard it. Under its influence pages may be dreamed over without being taken in.

No youth—no one not full grown should use tobacco. Secretions are always impaired by it, and a full development of the most healthy exercise of all the functions is rarely or never obtained under its influence.

Finally, the use of tobacco may become more than a habit; it may become a necessity to the healthy exercise of functions long accustomed to it, or it may become fatal to the constitution from over-indulgence, and, in either case, one should be careful not to confound it with the effects of adulterations, such as are above pointed out.

Detection of Adulterations.—The easiest way for the detection of foreign leaves is to examine with the microscope, which exhibits the different construction of whatever leaves may be present; but these are not the adulterations most apt to injure the constitution. For this purpose chemical tests have to be instituted; and the same processes already given in previous papers, for the detection of the same poisons in other substances, will be found equally efficacious for testing the purity of tobacco.

Effects of Habit.—On once becoming fully addicted to the use of tobacco, it becomes such an absolute necessity that the greatest distress arises from its privation. In the wintry solitudes of the Laplander or the Esquimaux, it becomes a necessary habit to their existence. The Arab, in the desert, would as soon part with his *gourd* as his pipe. And the sailor, grant him but this one luxury, and he will defy the fury of the elements. Nor is it less worshiped at the shrine of fashion. The fascinating influence of its effects once thoroughly incorporated, under whatever circumstances, becomes so wedded to the necessities of the functions, that health may not only suffer by its deprivation, but even life itself become, at least, a burthen.

A contributor to the *Dictionaire des Sciences Medicales* relates a case he once witnessed; thus:—"I recollect, about twenty years ago, while gathering samples in the forest of Fontainbleau, I met a man stretched on the ground, who seemed to me to be dead, but on approaching him, he asked if I had any snuff; on my replying in the negative, he sank back almost in a state of insensibility. He remained in this state until I brought a person to him, who gave him several pinches, after which he informed us that he had set out on his journey that morning, supposing that he had his snuff-box along with him, but he soon found he had left it behind; that he had traveled as long as he was able, till at length, overcome by distress, he found it impossible to proceed farther, and without my timely aid he would certainly have perished."

When the use of tobacco is carried to excess, general lassitude and indisposition to any exertion, either mental or physical, followed by tremor and excessive perspiration, are the usual symptoms—dyspepsia usually supervenes. An erroneous notion prevails that smoking, or other use of tobacco, will prevent the poisonous influence of malaria; so far from this

being the case, the excessive indulgence in tobacco, or the use of it by persons not accustomed to it, when so exposed, render the system even *more* susceptible. The poison in malaria, whether animal or vegetable, is usually potent in proportion to whatever departure from the most perfect standard of health and powers of endurance, and inasmuch as tobacco can in no respect heighten these, but rather lessen them, it would probably be beneficial to suspend its use altogether under such circumstances. It is well known to tobacco users that sickness creates a distaste for it, and that when the desire returns it may be looked upon as favorable to the restoration of health.

JOURNAL OF MERCANTILE LAW.

ACTION ON A PROMISSORY NOTE.

In the United States Supreme Court, (First District.) Before the Hon. Justice Balcom. The Bridgeport City Bank *vs.* the Empire Stone Dressing Company.

This was an action on a promissory note for $6.292 38, made by one William J. Flagg, dated New York, February 11, 1854, at eight months, payable to the order of the North American Stone Dressing Company, and indorsed as follows:—"The North American Stone Dressing Company, Charles T. Shelton, Treasurer—The Empire Stone Dressing Company, George Sherman, Secretary—Charles T. Shelton."

The defence was, that the indorsement of the note by the secretary was unauthorized; that notice of protest was not given to the defendants, and that Shelton, the last indorser, took up the note after its maturity, and afterwards left it with the plaintiffs as collateral security for the payment of six other notes, discounted for him by the bank; that the indorser, Shelton, having thus paid the note to the plaintiffs, and afterwards left it with them, after due, as collateral for a loan, the plaintiffs took the note subject to the equities between Shelton and the defendants; that the indorsement of the defendants was obtained by Shelton without any consideration therefor, and, consequently, that the plaintiffs could not recover anything on the note against the defendants.

The signature of the secretary was admitted, and the plaintiffs proved that the secretary of the defendants has authority to indorse notes in the prosecution of their business, and that the plaintiffs, on request of Shelton, discounted the note on the 10th day of June, 1854, in good faith, upon the credit of the defendants; that the note was discounted for account of the defendants, and the proceeds paid to Shelton.

Plaintiffs further proved that the defendants became insolvent as early as June, 1854, and in that month, or in July, sold out all their property to another company, from which time the defendants not only ceased to carry on any business, but had no other office than that occupied by their president, a lawyer, in Trinity Building, in this city, in which office were kept a few of the books of the company, and that there was no sign upon the president's door indicating that such was the office of the defendants. Plaintiffs also showed, by the testimony of a notary and his assistant, that the note fell due on Saturday; that the notices of protest were drawn up on the same day, and that, although the notary had long known of the insolvency of the defendants, inquiry was made on the Monday following, at Trinity Building, (given in the City Directory as the office of the company,) of the porter of the building, for the office of the defendants, and a notice of protest, directed to George Sherman, Secretary of the Empire Stone Dressing Company, was left with the porter; that afterwards, on the same day, a notice, with the same address, was taken to No. 62 East Twenty-seventh-street, the former residence of the secretary; that the house being closed, and the no-

tary being informed that George Sherman had removed to Cincinnati, the notice was, on the same day, inclosed and mailed to him, as such secretary, at that place. The notary further testified, that he believed he sent two notices to the Post-office, one directed to Sherman, secretary of defendants at Cincinnati, and the other to him, as such secretary, New York. The assistant testified that the notary gave him two inclosures for the Post-office, (one of which he remembered was directed to Cincinnati,) and that he put them both in the office the same Monday.

Defendants offered in evidence an agreement made between the plaintiffs by one Fairchild, their cashier, and Charles F. Shelton, by one Nichols, to the effect that the note of Flagg, due October 14, 1854, and protested for non-payment, was left with the plaintiffs as collateral security for the payment of six certain notes, therein described, and that when the above six notes were paid the Flagg note was to be given up.

The plaintiffs then called a former president of the bank, who testified that he was the president at the time Flagg's note was discounted, and was protested, and also when the six notes referred to in the agreement were left with the bank by Shelton; that these notes were not discounted, but only left as collateral security for the Flagg note, and that the cashier had no authority to discount notes or to make the alleged agreement, or to release any of the parties to the Flagg note, and that said agreement was made without the knowledge of the board of directors.

The evidence being closed, the judge held, that where there is no dispute about the facts, it is well settled in this State that what constitutes *due diligence* is a question of *law;* that *great* diligence is not required; and that in this case the holder had used *reasonable diligence;* also, that the plaintiffs by discounting the note, under the facts proved, became *bona fide* holders, and that their position as such was not changed by the subsequent agreement with Shelton, as to the six notes; and he thereupon directed the jury to bring in a verdict for plaintiffs, for the amount of the note and interest, deducting the amount of one of the six notes admitted to have been paid to the bank, with liberty to defendants to make a case to be heard at General Term in the first instance, and a stay of twenty days. Verdict for $7,138 02.

Truman Smith and H. & C. T. Andrews, for plaintiffs; William M. Evarts and C. F. Sanford, for defendants.

STATE AND COUNTY TREASURER.

In the Superior Court, Ohio—May, 1858. Before Judge Spencer. Hatch & Langdon *vs.* Hamilton Pollock, Treasurer of Symmes township.

Judge Spencer delivered the opinion of the court in this case. The plaintiff below, as Treasurer of Symmes township, sued the plaintiff in error, averring that, as such treasurer, he deposited with the defendants, in April, 1857, $2,365 of the township money, which was to be repaid, with 6 per cent interest, in sums as required by plaintiff to meet the demands upon him in his official capacity; that part of said money had been repaid; but that there was a balance still due from the defendants of $1,065, with interest, which the defendants refused to pay over on demand; whereupon he asks judgment, &c.

To the petition there was a general demurrer, and judgment upon it in favor of the plaintiffs, with interest from the time of the demand made, to reverse which is the object of the present action.

Two objections have been taken to the petition:—

1. That plaintiff has no legal capacity to sue.

2. That the contract of loan was illegal and void, because prohibited by statute.

Upon the first proposition we remark that, assuming the contract to be valid, the defendants, having contracted with the plaintiff, in his official capacity as treasurer of the township, have admitted his legal existence and capacity to *contract*, and to enforce such contract.

The second proposition presents the only question of serious difficulty.

The third section of "An act to punish the embezzlement and use of public moneys," provides to the effect, that if any officer, agent, or servant of the State, county, township, &c., intrusted with the care of the funds or other property of such State, &c., shall deposit or place the same in the hands of any other person or persons with an expectation or upon an agreement to receive therefor, by way of bonus or benefit, interest or any other valuable thing, he shall be fined in a sum equal to the amount thus deposited for the use of said State, township, &c.

It will be seen from this provision that the loan or deposit made by the plaintiff in this case, was as an officer or servant of the township; it was of funds belonging to the township; it secured a bonus by way of interest to the township, and it was prohibited by the express letter of the law, as it is clearly within its terms. It was, therefore, an unlawful act, and the contract founded upon it is unlawful and void. (State *vs.* Executors of Buttles, 3 *Ohio S. R.*, 319.) So far, then, as it is sought to hold the defendants liable, as upon an express contract, to return the money with interest, it cannot be enforced, upon the maxim, "*ex turpi contractu non oritur actio.*" Nor could the township, if suing in its corporate capacity through its trustees, maintain an action on such a contract; for, by so doing, it undertakes to, and necessarily does, ratify the contract. But there is no authority vested in townships, or township trustees, or a township treasurer, to loan the township funds on interest. What then? Is the money in such cases entirely lost to the township? Not so; if the loan be void, the defendants acquired thereby no title to the funds, but became the mere bailees of the plaintiff or of the township—bound to restore the money on demand as the property of the township.

In this point of view, has the plaintiff a legal right to sue on behalf of the township? It seems clear to us that he has, as trustee of an express trust, having a qualified interest in the funds of the township confided to his possession and safe keeping. By law the treasurer is made the depository of the township funds; as such he has a qualified interest in them after they have come into his possession; and, undoubtedly, has a right to reclaim them in behalf of his *cestui que trust* (the township) from all wrong-doers. Nor has he any power by any act of his own, to release or surrender such right of possession and control. Here the defendants themselves are shown to be wrong-doers, having unlawfully come by the funds of the township deposited in its treasury, and not the less so, because of the treasurer's consent, for he had no authority to give such consent.

We consider, then, that the case stands upon the same principle that it would if the defendants had taken these moneys from the *strong box* of the treasurer; the latter would have a right to reclaim them as the trustee for the township. In such case he recovers not upon *contract*, but for the unlawful detention or conversion of the public funds in and to which the plaintiff, as custodian, has a qualified interest and the right of possession. The amount of such recovery should be the money received, with lawful interest from the time of demand. For this amount the judgment at special term was rendered. There is no apparent error in the judgment, which must be affirmed, with costs.

Tilden and Rairden for plaintiffs in error; Strait and Hollister on the other side.

DECISION IN ADMIRALTY—EXCEPTIONS TO REPORT—COLLISION—DAMAGES—COMMON CARRIER—INSURANCE.

In the United States District Court. Before Judge Betts. Alfred H. Hovey *vs.* the steamboat Sarah E. Brown.

This case came up on exceptions to the commissioner's report. The action was for injury done by the steamboat to a vessel called the Mist, then in the possession of the libelant, and to the merchandise put on board her by its owners, and committed to the libelant's charge as a common carrier. The answer of the claimant denied the right set up by the libelant, and also denied that he had paid

any money to the owners of the cargo because of any injury to it. The court, upon hearing the cause, gave a decree for the libelant, and referred it to a commissioner to compute the damage. On the reference it appeared that the gross amount of the injuries caused by the collision was $6,667 81, including lighterage and preservation of the property, and that there was realized from its sale $2,353 59, leaving a balance of $4,314 24, for which sum, besides lighterage, towing, and interest, the commissioner reported. The libelant held a general policy of insurance covering the property in question, upon which the libelant was paid by the company $2,950. The claimant alleged that this amount should have been deducted from the damages, as a satisfaction and extinguishment so far of the cause of action, and excepted to the report on this ground, and also upon the ground that the libelant proved no actual payment by him to the owners of the cargo, and that the libelant was not entitled to damages beyond those actually sustained by the boat.

Held by the Court—That the decision of the court upon the merits proceeded upon the ground that the libelant, as a common carrier, had a qualified property in the Mist and her cargo sufficient to enable him to maintain an action in his own name for the injuries caused by the collision. That the claimant's exception to the allowance of damages beyond what he had actually paid, goes to the merits of the action, and the question cannot be brought up again by exception, but must be raised if at all by appeal, or at least by motion for a new trial. Moreover, by the law of this State, a common carrier is a competent party to sue a wrong-doer for and recover the full value of property injuriously interfered with by strangers while in his possession, (7 Cowen, 670; 2 Keanan, 343;) the same privilege and authority has been recognized in Admiralty as belonging to him. That the payment by the insurance company was not in favor of the steamboat, or in discharge or extenuation of its liabilities. She, by her fault, had incurred a liability to the amount decreed against her for the consequences of the collision. This single responsibility, and nothing more, is sought to be enforced against her by this action, and it clearly cannot be claimed, as an acquittance of that charge, that another party, under a contingent contract of insurance, paid the libelant a portion or the whole of the liability which the steamboat had legally incurred to him. There is no privity of contract or interest between the insurance company and the steamboat in this respect. The company and the libelant may stand in quite a different relation in respect to the application of that money, but whether the company attempts to reclaim the payment made on her contract or abandons it, is solely a question between that party and the libelant, with which the claimant has no concern. (17 How. R., 152.) Exception, therefore, overruled, except that the claimant is entitled to a recomputation of the charges, to ascertain whether "lighterage and towage" has been twice allowed by the commission.

DECISIONS IN ADMIRALTY.

In the United States District Court. Before Judge Betts. Ferdinand Maas *vs.* the schooner Pedee.

This was an action brought to recover for the non-delivery of 553 hides, shipped at Aspinwall on July 2, 1855, under a bill of lading consigning them to the libelant at this port. The schooner left Aspinwall, well manned and provided, but the crew were soon disabled by disease, and she was blown on the coast in almost a helpless condition, but was at last got into Carthagena in a crippled condition. A portion of the hides were found filled with vermin, and in a perishing condition. A survey was called on the cargo by the master of the schooner, under the advice of the American Consul and resident merchants conversant with the trade. A sale of the hides was advised, as being in a perishing condition. The master decided that to be the best course for the interest of the owners of the hides and the ship, and they were accordingly sold at auction. After being cleaned and prepared, they were shipped to New York, and brought, on sale, a considerable advance on the auction price.

Held by the Court—That the run of the schooner to Carthagena, and her de-

tention there, were the result of inevitable necessity, and the vessel is not responsible to the libelant for non-delivery of the cargo, pursuant to the bills of lading, arising from that cause. That the auction sale was made in good faith by the master, and under the urgency of an apparently extreme necessity. That the master has authority in law to cause cargo in his charge, being in a perishing condition, and which he is unable otherwise to save or transmit pursuant to the contract of affreightment, to be sold at public auction for the benefit of whom it may concern, if he acts *bona fide* and under evidence showing a stringent necessity for so doing. The reality of the peril or urgency which can justify a master in such an act is not to be determined by the after results. That the master becomes in such a case by implication clothed with power, if acting in entire good faith, to sell either ship or cargo, or both, and his acts in so doing will be upheld by the law, if upon all the facts before him it may be reasonably supposed a prudent owner personally present would have directed or approved the sale. That on the facts the master was justified in ordering the sale of the hides in question. Libel dismissed with costs.

SUPPLIES—LIEN.

In the United States District Court. Before Judge Betts. William Menzies *vs.* the bark Agnes.

This was a libel to recover for certain timber furnished for the vessel to Erskine for building the same vessel. No direct evidence was given whether the timber was furnished to Erskine or directly to the vessel. But enough evidence was given to raise a presumption that the libelant and Erskine dealt in respect to the lumber on the understanding that it was supplied mainly, if not wholly, for the particular vessel.

Held by the Court—That this affords adequate ground for lien in favor of the vendor to the value of the material used in the vessel. But it devolves upon the libelant to establish by clear evidence the quantity and value of the material procured for and used in constructing this vessel. Decree for the libelant, with reference accordingly.

LIEN ON CANAL-BOATS.

The following act of 1858 is important to our commercial readers :—

AN ACT TO PROVIDE FOR THE REGISTRY OF LIENS AND INCUMBRANCES UPON BOATS AND CRAFTS NAVIGATING THE CANALS OF THIS STATE. PASSED APRIL 15, 1858—THREE-FIFTHS BEING PRESENT.

SECTION 1. *The People of the State of New York, represented in Senate and Assembly, do enact as follows*, Any person having any lien or incumbrance on any canal-boat, steam-tug, scow, or other craft navigating the canals of this State, by a chattel mortgage, duly filed, may make a statement in writing, setting forth the nature of his claim, the time when the same arose, the manner in which it originated, and the amount of such lien and incumbrance, and may annex thereto an affidavit made by himself or his agent, or attorney, that the said statement is correct, and the claim just and true, and file the same in the office of the Auditor.

SEC. 2. It shall be the duty of the said Auditor, on the receipt of the said statement, to file the same in his office, and to enter the substance in a book to be provided for that purpose, and the amount, if any, claimed to be due ; which book shall always during office hours be open for the inspection of all persons desiring to examine the same.

SEC. 3. All claims and liens by chattel mortgage, a statement of which shall be filed as herein provided, shall, from the time of such filing, have preference and priority over all other claims and liens, in the same manner and to the like extent of claims and liens arising on chattel mortgages filed and entered in towns where the mortgagor resides, but shall not have any priority over existing liens and claims.

SEC. 4. The Auditor shall charge, for filing the said statement and making the

entry thereof as herein provided, the sum of fifty cents, and he shall not be obliged to file or enter the same until such sum is paid.

SEC. 5. Any statement made and filed as herein provided, and copies thereof duly certified by the Auditor in the manner required by law, may be read and used as evidence in all courts of justice.

SEC. 6. This act shall take effect on the first day of July next.

PILOTAGE—UNDERWRITERS—TOWING.

In the United States District Court. Before Judge Betts. Daniel C. Chapman *vs.* the bark Lucerne.

This suit was brought to recover the sum of $30 50, alleged to be due the libelant as pilotage. The bark, on a voyage from the coast of Africa to this port, put into Norfolk in distress, and was there abandoned by her owner to the underwriters. By their direction a steam-tug was sent from here to her, with a pilot and four seamen, to tow her to New York, the owner having no privity with that proceeding. The pilot who went did not go on board the bark at all, but remained on board the tug, which towed the bark to this port, and for those services he brings this suit.

Held by the Court—That the bark being unnavigable, and brought home solely by the power of the tug, was not in a condition bringing her within the provisions of the State statute under which the libelant claims. (Laws of 1857, ch. 243, sec. 29.) That the libelant, on the facts, was employed by the underwriters, and not by the owner or master of the bark; and that he performed no service to her, but remained on board the tug. Though told by the master of the tug off Barnegat to take charge of the bark, his charge only consisted in remaining on board the tug without having any control or direction of her navigation, and the libelant could not exercise in behalf of the bark, being towed as an inert body, his functions as pilot, nor even attempt to undertake them. That the libelant, upon the facts and law of the case, fails to establish any right of action against the bark. Libel dismissed with costs.

OBSTRUCTING A CUSTOM-HOUSE OFFICER.

In the United States Circuit Court, April, 1858. Before Judge Hall. The United States *vs.* Timothy Desmond.

This was an indictment for obstructing a Custom-house officer in the discharge of his duty.

It appeared from the evidence that the defendant was a gatekeeper on Pier No. 44 North River, at which the steamer Kangaroo was lying; that the Custom-house officer, Mr. Munroe, was on board the ship, and, hearing a confusion at the gate, went there, and found the defendant refusing to let parties in, whereupon he ordered him to open it, and, on his refusal, undertook to open it himself, and, in doing so, got hit on the head by the defendant with a stick.

Judge Hall thought this was hardly a part of Munroe's duty as a Custom-house officer, and the jury found a verdict of not guilty.

For the United States, Mr. Joachimssen. For defendant, Mr. Donohue.

ACTION ON A PROMISSORY NOTE.

United States Circuit Court, Charleston, S. C. Hon. A. G. Magrath, presiding. W. T. Lane & Co. *vs.* Asa Gobbold.

This was an action against one or two makers of what purported to be a promissory note, whereby defendant promised to pay $2.274 27 for value received, with current rate of exchange on New York, and all expenses of collection in case of suit, at the agency of the Mechanics' Bank of Cheraw, South Carolina, at Marion, South Carolina. Defendant's counsel contended that this was no promissory note—that if an agreement the consideration must be set out in the declaration, and all the facts established by proof; and so it was held by his Honor, that a paper writing containing a promise to do anything more than to pay a certain sum of money at a certain time, and at all events, is not a promissory note, but is a special agreement, and must be declared on as such.

COMMERCIAL CHRONICLE AND REVIEW.

OCEAN TELEGRAPH—ITS EFFECTS GENERALLY—COTTON IN TRANSITU—CONCENTRATION OF PRICES OPERATES UPON INLAND TRAFFIC — DULL SEASON GENERALLY — GOVERNMENT LOAN—DECAY OF REVENUES—REVENUES FROM SUGAR — GOVERNMENT REVENUES QUARTERLY — GROSS REVENUES AND EXPENDITURES FOR THE YEAR — BIDS FOR THE NEW FIVE PER CENT LOAN — ITS AWARD—CAUSE OF CUSTOMS DECLINE—EXCHANGE AGAINST NEW LOAN—RATES IN NEW YORK—SHIPMENTS OF SPECIE—RECEIPTS OF SPECIE—FRAZER'S RIVER—SHIPMENTS FROM BOSTON—KIND OF SPECIE SHIPPED—SPECIE IN BANKS—ITS DISTRIBUTION—STATE OF CROPS — REQUIREMENTS OF SPECIE—RATES OF INTEREST — PROBABLE DEMAND FOR MONEY—UNITED STATES BANKS—WESTERN CURRENCY—THE CIRCULATION BY SECTIONS—STATE OF BUSINESS—IMPORTS AND EXPORTS.

THE past month has been marked by the extraordinary feat of the connection of the Old and New Worlds by the agency of the telegraph, the effect of which is to half the time formerly necessary to receive replies between the two hemispheres. All the markets of the commercial world in Europe and America can now be laid before the well-informed merchant, as in a chart of the same date. At the same time, steam and multiplying lines of communication operated by it now bring each central city within about the same time of each other. On the day that a steamer sails for Liverpool, Hamburg, Bremen, Havre, and New Orleans, the prices of all those cities can be known at the same moment. Hence, operations are greatly simplified and made more direct. The business in cotton has of late much increased in this city in "transitu," the article being sold here by sample, and shipped direct to its destination from the South. The ocean telegraph, it is supposed, will much enhance this business, since the prices of Europe, being all concentrated here, where the samples are, a far greater latitude will be given to the business. The operation of telegraphs and railroads on land was to consolidate business as to locations, and to spread through the year in point of time. Instead of a visit to the city once in six months, to make one large bill of goods, the dealer could make a smaller purchase, and repeat his orders daily by telegraph as demand warranted through the season. Something like this will doubtless be the result of the ocean telegraph. The prices of cotton in all the ports of Europe will be known in New Orleans at the date of the departure of every vessel, and on every departure from Europe the state of the markets here with orders for goods will be received. As the season progresses here, a delay of fourteen days in giving an order will suffice to get the goods in the same time. Beyond these facilities for business no immediate change is to be expected from the operation of the telegraph. All business will soon accustom itself to the new influence, and it is perhaps a matter of congratulation that it goes into operation at so dull a season, since at a highly speculative juncture it might have imparted an undue animation to enterprise. The improving business will now grow up with its operation, and be influenced by its effects in bringing the ideas and capital of Europe in closer relation to our enterprises.

For the month there has been no marked advance in financial affairs, as a glance at the table of weekly bank statements in seven leading cities, under our head of "Banking, Currency, and Finance," will demonstrate. The want of activity in business has allowed money to accumulate, until the specie in the banks of four leading cities is now $62,000,901. The loss of sugar in Louisiana by the freshets gave a spur to speculation in that article, which has caused

some demand for money and rise of prices in it. Otherwise, there has been little business movement to draw money.

In our last we mentioned the projected loan of the Federal government to supply its wants. The taking of that loan has been the leading event of the past month. The position of the Federal government for the past year has been as follows :—

	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total year to June 30, 1858.
Revenue	$20,929,819 31	$7,092,665 00	$8,002,528 85	$23,161,256 44	$70,273,869
Expense	23,714,528 37	17,035,453 07	18,104,915 74	22,730,570 52	81,585,467

Of the receipts, $23,716,300 were for treasury notes, and of the expenditures, $8,217,283 were on account of the debt exclusive of interest, from which it results that the ordinary expenditures exceeded the ordinary receipts $26,210,615, but the revenues of the first quarter were large, and the deficit has accrued altogether in the last three quarters. The whole revenue and expenditure for the last two years were as follows from official sources :—

RECEIPTS AND EXPENSES OF THE UNITED STATES FOR THE FISCAL YEAR ENDING JUNE 30.

	1857.	1858.
RECEIPTS.		
Customs	$68,875,905 05	$41,789,620 96
Sales of lands	3,829,486 64	3,513,715 87
Miscellaneous	926,121 98	1,254,232 77
Treasury notes	....	23,716,300 00
Total receipts for fiscal year	$68,631,513 67	$70,273,869 60
EXPENDITURES.		
Civil	$27,531,922 37	$26,287,822 20
Interior	5,358,274 72	6,051,923 38
War	19,261,774 16	25,485,383 60
Navy	12,726,856 69	13,976,000 54
Old debt	503 21	5 00
Redemption loan of 1842	516,539 58	614,270 82
" 1846	714,013 26	26,400 00
" 1847	1,000,000 00	1,759,950 00
" 1848	898,150 00	1,435,900 00
Redemption Texan stock	143,000 00	28,000 00
Creditors of Texas	629,353 24	38,788 42
Bounty land stock	400 00	225 00
Premium on stock	363,572 39	574,443 08
Interest on public debt	1,678,265 23	1,567,055 67
Payment of treasury notes	100 00	3,639,300 00
Total expenditures	$70,822,724 85	$81,585,467 71

Of the new loan authorized to make good the deficit, the department advertised for $10,000,000 at 5 per cent interest, 15 years to run, and the bids, opened on August 8th, amounted to $38,271,000, at rates ranging from par to 107.03, those above 105.78, however, being only for small sums. The distribution of the loan appears to have been taken as follows :—

At 106 to 107.8 per cent	$26,000
105 to 106 "	4,350,000
104.14 to 105 "	4,896,000
104.12½ "	223,000
Total	$10,000,000

The award was as follows :—

	Per cent premium.	Amount.
Bank of Commerce.....from	4.53 to 5.67	$1,550,000
G. S. Robbins & Sons.....	5.05 to 5.78	2,000,000
United States Trust Company	4.65 to 5.07	500,000
Commann & Co.....	4.35 to 5.52	750,000
Clark, Dodge & Co.....	4.26 to 5.76	300,000
Whitehouse, Son & Morrison.....	4.21 to 5.01	450,000
Carroll, Livingston & Co	4.12½ to 4 72½	402,000
Drexel & Co., Philadelphia	4.29 to 5.04	500,000
Crouse & Co.....	4.29 to 5.04	100,000
Marie & Kanz	4.12½ to 5.50	771,000
Trover & Colgate	4.53 to 5.08	500,000
Bank of the Republic.....	. .. to 5.	100,000
Hoffman & Ten Broeck.....	4.25 to 5.10	70,000
Continental Bank	. .. to 4.25	50,000
Howland & Aspinwall.....	4.52 to 5.52	450,000
Hoguet & Boell.....	4.26 to 5.01	150,000
Seamens' Bank for Savings	4.25 to 5.25	100,000
Chubb Brothers.....	4.14 to 5.04	300,000
Bank of the Metropolis	4.12½ to 5.	59,000
M. Townsend, New Haven	. .. to 5.	100,000
City Bank, New Haven	4 80 to 5.08	80,000
New Haven Bank.....	. .. to 4.50	20,000
Tallmadge & Manly.....	4.25 to 5.25	250,000
Meigs & Greenleaf.....	4.37½ to 4.50	55,000
J. C. Thatcher.....	4.25 to 4.81	200,000
H. J. Seaman.....	. .. to 5.	25,000
Savings Bank, Baltimore.....	. .. to 5.	50,000
R. W. Montgomery.....	. .. to 4.75	20,000
State Bank of Troy	6.03 to 7.08	20,000
E. S. Munroe.....	4.26 to 4.51	40,000
Thomas J. Abbott.....	. .. to 6.	6,000
Joseph Fowler.....	. .. to 5.	5,000
C. F. Pond.....	. .. to 5.	20,000
Total		$10,000,000

The average rate of premium is 4.907 per cent.

Some portion of this amount found its way abroad afterwards, and supplied some exchange in the market. The decline in customs for the year has been $22,086,285, which at the average rate of duty represents $111,000,000 of dutiable goods; while, on the other hand, the exports have not greatly declined. Nevertheless, the rates of bills have been sustained and were as follows :—

	July 26.	August 2.	August 16.
London	108¾ a 109¼	109¼ a 110	109¼ a 109½
Paris	.... a 5.12½	5.18¾ a 5.11½	5.12½ a 5.11½
Bale and Zurich.....	.... a 5.12½	..... a 5.11½	5.12½ a 5.11½
Antwerp.....	5.11½ a 5.12½	5.11½ a 5.12½	5.11½ a 5.11½
Amsterdam.....	41⅛ a 41⅞	41⅛ a 41⅞	41⅛ a 41⅞
Frankfort.....	41⅛ a 42	41⅛ a 41⅞	41⅛ a 42
Bremen	79¾ a 80	79¼ a 79¾	79¾ a 80
Prussian thal'rs, on Berlin, Liepzig, Cologne.....	72¾ a 73¼	73 a 73¾	72¾ a 73¼
Hamburg.....	36⅛ a 36½	36⅛ a 36⅞	36⅛ a 36½

With these rates of specie there has been a continued shipment of specie, not, however, in degree equal to the corresponding period last year. The comparative receipts and shipments in the city, with the amount remaining in the city, were as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,266
23.....	.....	781,295	.....	1,244,868	3,073,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,480	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,134	225,274	2,964,000	35,925,076
20.....	1,004,100	306,351	11,000	116,114	6,853,852	37,681,656
27.....	....	88,734	1,403,949	88,120	6,141,594	37,071,066
April 3.....	1,487,198	742,233	.....	115,790	5,548,069	37,078,069
10.....	875,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	208,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,890	1,550,000	186,873	3,145,400	38,209,613
8.....	.....	671,101	.....	106,110	2,874,200	38,327,346
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,394,892	1,446,175	16,616	4,803,609	38,170,900
17.....	208,000	2,045,889	.....	68,318	7,773,108	38,011,251
26.....	.....	2,019,406	1,799,502	276,487	7,461,600	39,410,688
July 3.....	1,892,000	58,228	.....	317,110	5,820,000	39,650,000
10.....	.....	1,184,115	1,500,000	564,080	5,342,200	40,047,800
17.....	1,591,107	523,868	.....	637,240	5,157,600	40,485,000
24.....	200,000	1,893,893	.....	1,028,270	5,336,000	40,851,000
31.....	1,488,040	896,407	1,163,818	303,318	5,144,700	40,856,800
Aug. 7.....	.....	1,615,932	.. ....	786,841	5,553,400	40,699,200
14.....	1,245,905	930,430	1,531,514	440,729	12,886,800	44,037,300
Total.....	24,175,217	29,433,604	4,722,751	6,399,988	.....	.....

The Frazer's River movement has continued, in connection with the dullness of business there, to diminish the receipts of gold from California, but, on the other hand, the exports are much less. Including the amounts remitted from Boston, the shipments from January to August 1st were $17,159,238, against $32,534,167 same period last year, a diminution of over $15,000,000, which has accumulated in banks. The kind of specie and its destination that has been shipped is seen as follows :—

SHIPMENTS OF SPECIE FROM PORT OF NEW YORK.

	American coin.	Bars.	Silver.	Sov'reigns.	D'bloons.	French gold.	Spanish silver.	Total.
Liverpool....	409,612	2,007,870	....	34,289	.....	....	5,426	2,457,197
Havre.....	296,213	366,667	....	.....	.....	....	....	662,880
Havana	1,000	.....	....	.....	21,600	....	....	22,900
Bremen	1,639	.....	....	.....	.....	....	5,376	7,015
Hamburg.....	8,074	... ..	....	.....	.....	....	....	8,074
Porto Rico...	....	.....	3,000	. ...	30,074	....	....	33,074
Gonaives	700	.....	....	....	... .	....	....	700
Buenos Ayres.	....	.....	....	.....	5,130	....	....	5,130
St. Thomas ..	15,000	.....	....	.....	.....	....	....	15,000
Cuidad, Boliv'r	5,000	.....	....	.....	.....	....	....	5,000
Arroga.....	....	.....	1,000	.....	.....	....	....	1,000
Laguayra....	5,000	.....	....	.....	.....	....	....	5,000
Santa Martha.	....	.....	....	.....	.....	1,600	....	1,600
July 12, Aug. 16	742,238	2,374,527	4,000	34,289	57,105	1,600	10,802	3,224,570
May 8, Aug. 16	1,249,425	4,319,229	39,496	278,881	169,212	29,735	13,418	6,019,330

The taking of the new loan of the government has caused the transfer of considerable sums of specie from the banks to the government vaults, and much of this has come from institutions which sold out their stocks last year when the government gave a higher price for them, and are now able to get them back on better terms. The Bowery Savings Bank, of New York, as an instance, has been carrying $888,000 in gold with this view. Some considerable portions of the loan will go abroad. There have been sales in the New York stock exchange at rates apparently less than the bids; this arises from the fact that the sales by the resolution of the board are "flat." or without interest, until January. That is to say, the seller of the stock keeps the interest until January, 1859.

The bank loans have not increased much during the month, but it is the dull season, and similar features continue to prevail abroad. The amount of specie in the banks of six cities was as follows, comparatively :—

SPECIE IN BANKS.

	October.	March 11.	April 8.	May 13.	June 13.	July 12.
London.	$35,850,110	$88,532,091	$88,627,166	$86,940,942	$86,530,138	$94,217,895
Paris...	35,585,613	63,323,365	71,780,888	82,993,386	85,716,528	98,991,184
N. York	7,843,230	32,961,076	32,086,436	34,730,728	33,867,253	35,328,184
N. Orl'ns	3,280,370	10,978,759	10,808,605	10,615,535	10,312,237	10,877,768
Boston.	2,563,112	7,589,968	8,505,312	9,210,111	9,410,569	9,000,663
Philad..	2,071,434	5,448,514	6,183,289	7,019,204	7,055,188	6,399,754
Total	86,743,890	208,834,273	218,003,696	231,509,906	232,891,913	244,855,448

The aggregate accumulation continues from month to month, but the period is now reached when the sum of specie held at all the great centers is usually at its highest, and the outflow generally commences for the service of the crops. At Paris, the amount is nearly as large as ever before, and the total amount at all points is far larger than at any previous period. It is to be borne in mind this year, that no great expenditure or enterprises are on foot to cause an extra demand for money. War expenditures in Europe are comparatively small. Railway enterprises are in abeyance. There is no commercial speculation at present, and the crops everywhere promise so well as to indicate low prices; and, therefore, to tempt no money into investments. It is, therefore, to be supposed that the usual continued current of money will be small this year, and that the rates will continue low. In fact, experience shows that after all former revulsions like that of 1825, 1838, and 1848, the rate of interest remained very low for a number of years, at least during those years when the crops of food in England were good. Such a period is now just entered upon, and no material demand for money to cause a rise in its rates is shortly to occur. The crops of the United States still promise, in the aggregate, to be good, although complaints are everywhere heard of losses in localities. The fall in prices and the stagnation of business drive in a large bank circulation, and the official report from Wahington, published under our "Banking Department," shows the aggregate circulation to have fallen from $214,778,822, January, 1857, to $155,208,344, January, 1858, or a decline of $59,570,478. The greatest decline in this circulation was in the Middle States, and the smallest in the Western.

CIRCULATION OF BANKS IN UNITED STATES BY SECTIONS.

	Eastern.	Middle.	Southern.	Southwest.	West.	Total.
1857..	$53,554,041	$62,696,774	$38,788,552	$37,792,261	$22,147,594	$214,778,822
1858..	41,417,692	44,187,749	27,751,551	23,727,772	18,123,580	155,208,344
Dec...	$12,136,349	$18,509,023	$11,037,001	$13,964,489	$4,023,614	$59,570,478

The decrease of Eastern notes is, to some extent, due to the fact that the circulation sent out by arrangement with railroads for Western circulation returned upon them, and was, in fact, a reduction of Western currency. Otherwise, the local currency at the West seems to have been reduced in a ratio less than the other sections, and, perhaps, precisely for the reason that that section has paid up less. The business of the season has, thus far, not been active, but prices have been well maintained. There has been a struggle between the want of goods and the indisposition to submit to the terms of diminished credit that have been persisted in; while on the other hand, the small make of goods has afforded ground for higher anticipation; the more so, that the cheapness of food in England and Western Europe is likely to enhance the consumption of merchandise.

The decline in goods entered for consumption, as well as those entered for warehouse, continues to manifest itself in a marked manner. Not only dutiable, but free goods, diminish in the aggregate, and the receipts at the port are barely half those of the same period last year, as follows :—

FOREIGN IMPORTS AT NEW YORK IN JULY.

	1855.	1856.	1857.	1858.
Entered for consumption	$13,008,485	$19,288,885	$26,042,740	$14,013,659
Entered for warehousing	2,431,756	4,907,675	6,796,835	2,949,166
Free goods	799,671	1,280,854	2,455,333	1,506,027
Specie and bullion	69,035	238,918	505,298	36,895
Total entered at the port	$16,308,947	$25,716,332	$35,800,206	$18,505,747
Withdrawn from warehouse	2,029,164	2,187,337	10,470,820	3,164,538

The quantity thrown upon the market was still less, as last year it included $10,470,820 withdrawn from warehouse, while only $3,164,538 were so entered for this year. Thus the total on which duties were paid was $36,513,560, while this year only $17,178,107 of merchandise was thrown upon the market.

The value of foreign goods entered at this port during the first seven months of the current year is $76,439,252 less than for the corresponding total for 1857, and $53,727,860 less than for the same period of 1856 :—

FOREIGN IMPORTS AT NEW YORK FOR SEVEN MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Entered for consumption	$58,906,280	$99,589,770	$91,280,614	$50,334,179
Entered for warehousing	16,264,647	21,093,824	47,911,631	15,185,419
Free goods	8,562,298	12,371,647	11,680,078	12,955,525
Specie and bullion	523,151	963,500	5,857,310	1,815,258
Total entered at the port	84,256,376	134,018,241	156,729,633	80,290,381
Withdrawn from warehouse	14,270,234	13,105,204	23,616,081	25,076,502

Included in the imports at New York, for the month of July, were dry goods amounting to $7,599,039, being $13,330,542 less than the total for the corresponding period of last year. The total thrown upon the market shows a still greater difference, as will appear from the following comparison :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF JULY.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$2,683,257	$4,181,850	$6,996,986	$2,691,875
Manufactures of cotton	1,004,456	1,981,159	2,644,673	1,066,295
Manufactures of silk	3,458,933	4,829,350	6,483,722	2,244,955
Manufactures of flax	690,757	791,684	1,034,170	575,752
Miscellaneous dry goods	671,003	910,397	1,187,900	417,254
Total	$8,508,406	$12,644,440	$18,347,451	$6,996,131

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$350,944	$407,577	$2,644,823	$409,266
Manufactures of cotton.....	121,677	81,683	639,531	131,971
Manufactures of silk.....	255,550	220,175	2,042,522	192,302
Manufactures of flax.....	89,832	39,929	392,013	88,225
Miscellaneous dry goods.....	43,158	71,131	247,997	90,665
Total.....	$861,161	$820,495	$5,966,886	$912,429
Add entered for consumption....	8,508,406	12,644,440	18,347,451	6,996,131
Total thrown on market....	$9,369,567	$13,464,935	$24,314,337	$7,908,560

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$224,725	$657,573	$1,235,008	$370,985
Manufactures of cotton.....	101,494	176,222	408,236	68,427
Manufactures of silk.....	214,569	213,131	568,065	70,999
Manufactures of flax.....	74,186	69,699	164,535	54,452
Miscellaneous dry goods.....	45,124	55,364	206,291	43,045
Total.....	$660,098	$1,171,989	$2,582,130	$602,908
Add entered for consumption....	8,508,406	12,644,440	18,347,451	6,996,131
Total entered at port.....	$9,168,504	$13,816,429	$20,929,581	$7,599,039

This makes the total receipts of dry goods at New York, since January 1st, $36,546,940 less than for the same period of last year, and less than for the same period of a number of years previous :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR SEVEN MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$7,864,810	$15,293,814	$14,405,242	$7,667,688
Manufactures of cotton.....	4,664,731	10,222,133	11,593,109	4,886,559
Manufactures of silk.....	11,257,784	19,486,648	17,805,042	8,855,134
Manufactures of flax.....	2,915,355	5,109,742	4,104,518	2,115,268
Miscellaneous dry goods.....	2,789,645	4,452,102	4,420,275	1,782,432
Total.....	$29,492,325	$54,563,939	$52,328,186	$25,307,081

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$1,542,617	$1,209,488	$3,688,663	$2,606,395
Manufactures of cotton.....	1,772,853	1,535,179	2,402,012	2,947,330
Manufactures of silk.....	1,833,433	1,467,799	3,244,488	2,581,656
Manufactures of flax.....	872,100	745,955	1,128,012	1,544,048
Miscellaneous dry goods.....	578,745	298,806	591,981	943,991
Total withdrawn.....	$6,599,748	$5,257,177	$11,055,156	$10,623,420
Add entered for consumption....	29,492,325	54,563,939	52,328,186	25,307,081
Total thrown upon market...	$36,092,078	$59,821,116	$63,383,342	$35,990,501

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,262,361	$1,988,598	$5,349,836	$1,492,256
Manufactures of cotton	1,095,280	1,260,318	2,502,580	1,441,855
Manufactures of silk	1,641,274	1,547,504	3,989,468	914,698
Manufactures of flax	696,792	514,283	1,458,629	594,960
Miscellaneous dry goods	536,361	527,309	1,087,599	418,308
Total	$5,232,068	$5,733,007	$14,388,107	$4,862,277
Add entered for consumption	29,492,325	54,563,939	52,328,186	25,307,081
Total entered at the port	$34,724,393	$60,296,946	$66,716,293	$30,169,358

The cash duties received at the port of New York, during the month of July, are very small, being less than half than for the same period last year: they are reckoned, of course, upon the goods thrown on the market. The total does not include the hospital money, and thus varies slightly from the deposits at the sub-treasury on account of the Collector. We annex a comparative summary :—

CASH DUTIES RECEIVED AT NEW YORK.

	1855.	1856.	1857.	1858.
In July	$3,787,341 95	$5,441,544 27	$6,987,019 61	$3,387,305
Previous 6 months	14,299,945 71	22,541,145 75	19,293,521 31	10,089,113
Total since Jan. 1st.	$18,087,287 66	$27,982,690 02	$26,280,540 92	$13,476,418

The domestic exports from New York to foreign ports, for the month of July, have been larger than for the corresponding month of last year, but far below the shipments for July of 1856, both in produce and specie. Thus the total, exclusive of specie, is $1,870,480 less than for July, 1857. We annex a comparison including three years :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF JULY.

	1855.	1856.	1857.	1858.
Domestic produce	$3,960,757	$6,901,272	$4,273,696	$4,771,962
Foreign merchandise (free)	185,557	22,423	407,697	70,463
Foreign merchandise (dutiable)	210,320	108,617	582,059	277,419
Specie and bullion	2,923,324	5,278,126	3,628,377	2,801,496
Total exports	$7,279,958	$12,310,438	$8,891,829	$7,921,340
Total, exclusive of specie	4,356,634	7,032,312	5,263,452	5,119,844

This leaves the total foreign exports from New York since January 1st, exclusive of specie, $7,161,942 less than for the corresponding seven months of last year :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR SEVEN MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce	$30,298,181	$44,678,165	$38,725,336	$33,852,354
Foreign merchandise (free)	3,289,114	592,508	2,315,874	853,024
Foreign merchandise (dutiable)	3,200,172	1,832,668	2,883,956	2,557,844
Specie and bullion	19,998,119	19,501,927	26,026,439	15,161,455
Total exports	$56,785,586	$66,605,268	$69,951,605	$51,924,677
Total, exclusive of specie	36,787,467	47,103,341	43,925,166	36,763,222

The great decline has been in the exports of specie, which last year went freely forward. This year money is cheap abroad, and the balance due on the current year's business has probably been in favor of this country. The large crop of cotton has aided the exports of domestic goods.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

NEW YORK CITY BANKS, CAPITALS, DIVIDENDS, PRICES.

Names of Companies.	Capital.	Shares.	Par.	Dividends payable.	Last divid'nds. p. c.	Price.
America	$2,878,325	30,000	$100	Jan. & July.	3½	108
American Exchange	4,724,475	50,000	100	May & Nov.	3	108
Atlantic	400,000	4,000	100	June & Dec.	3½	100
Artisans'	600,000	24,000	25	May & Nov.	3	72
Butchers' & Drovers'	800,000	32,000	25	Jan. & July.	5	108
Broadway	1,000,000	40,000	25	Jan. & July.	5	112
Bull's Head	173,300	6,932	25	Sept. & March.	4	76
Corn Exchange	1,000,000	10,000	100	Feb. & Aug.	4	99
Commerce	8,317,680	83,178	100	Jan. & July.	3½	103
City	1,000,000	10,000	100	May & Nov.	4	107
Chemical	300,000	3,000	100	Quarterly.*	6	350
Chatham	450,000	18,000	25	Jan. & July.	4	60
Citizens'	400,000	16,000	25	Feb. & Aug.	4	92½
Continental	2,000,000	20,000	100	Jan. & July.	3½	99
Commonwealth	750,000	7,500	100	Jan. & July.	3½	92
Dry Dock	200,000	14,000	30	Jan. & July.	4	104
East River	300,000	6,000	50	Jan. & July.	3	50½
Fulton	600,000	20,000	30	Jan. & July.	5	100
Greenwich	200,000	8,000	25	May & Nov.	3½	100
Hanover	1,000,000	10,000	100	Jan. & July.	3½	81½
Importers' and Traders'	1,500,000	15,000	100	Jan. & July.	4	99½
Irving	500,000	10,000	50	Jan. & July.	3½	95½
Leather Manufacturers'	600,000	12,000	50	Feb. & Aug.	5	120
Manhattan	2,050,000	41,000	50	Feb. & Aug.	5	125
Merchants'	2,071,637	42,000	50	June & Dec.	3½	108
Merchants' Exchange	1,235,000	24,700	50	Jan. & July.	4	95
Mechanics' and Traders'	400,000	16,000	25	May & Nov.	4	108
Mercantile	1,000,000	10,000	100	Jan. & July.	5	100
Metropolitan	3,921,600	40,000	100	Jan. & July.	4	108½
Marine	650,000	15,000	50	Jan. & July.	4	86
Mechanics'	2,000,000	80,000	25	Jan. & July.	4	101
Market	1,000,000	10,000	100	Jan. & July.	4	91
New York	2,568,875	24,187	100	Jan. & July.	3½	107½
National	1,484,187	30,000	50	Apr. & Oct.	4	109
North America	1,000,000	10,000	100	Jan. & July.	3½	95
Nassau	750,000	25,500	25	Jan. & July.	3	100
New York Exchange	130,000	1,300	100	Jan. & July.	4	92
New York County	200,000	2,000	100	Jan. & July.	3½	95
Ocean	1,000,000	20,000	60	Feb. & Aug.	3	84
Oriental	300,000	12,000	25	Feb. & Aug.	3	90
Park	2,000,000	20,000	100	Jan. & July.	4	101
Phenix	1,800,000	90,000	20	Jan. & July.	4	106½
People's	412,000	16,300	25	Jan. & July.	3½	95
Pacific	422,700	8,454	50	June & Dec.	4	112
Republic	2,000,000	20,000	100	Feb. & Aug.	5	117
St. Nicholas	750,000	7,500	100	Feb. & Aug.	4	90
Shoe and Leather	1,451,840	14,518	100	Apr. & Oct.	4	106
Seventh Ward	500,000	10,000	50	Jan. & July.	5	120
State	2,000,000	40,000	100	Jan. & July.	5	94
Tradesmen's	800,000	20,000	40	Jan. & July.	4	102
Union	1,500,000	75,000	50	May & Nov.	4	109½
Williamsburg City	300,000	6,000	50	Jan. & July.	3	100

* January, April, July, October.

CONDITION OF THE BANKS THROUGHOUT THE UNITED STATES.

TREASURY DEPARTMENT, April 22, 1858.

SIR:—I have the honor to submit a report on the condition of the banks throughout the Union, in compliance with the following resolution of the House of Representatives, adopted July 10, 1832:—

"*Resolved*, That the Secretary of the Treasury be directed to lay before the House, at the next and each successive session of Congress, copies of such statements or returns, showing the capital, circulation, discount, specie, deposits, and condition of the different State banks, and banking companies, as may have been communicated to the Legislatures, Governors, or other officers of the several States within the year, and made public; and where such information cannot be obtained, such other authentic information as will best suit the deficiency."

At the date of the bank statements received at this department for the last year, there were in the whole Union 1,422 banks, including 138 branches; besides 51 banks from which no returns have been received, making a total of 1,473.

The returns show that there has been an increase of bank capital during the last year of $23,788,113. It is now $394,622,799. But, whilst the capital has been increased, the loans and discounts, and the bank circulation (the notes of the banks) have very materially decreased. Of the first, there were reported, for the year 1856–'57, $50,273,607 more than for the year 1855–'56; whilst for 1857–'58, they are less by $101,291,605 than they were for the year 1856–'57. The decrease in the circulation is also very considerable, being at the close of the last year $59,570,478 less than at the close of the year 1856.

Whilst there has been an increase of bank capital, and a very great reduction in the amount of loans and circulation, there has been a considerable increase of specie, the amount in possession of the banks being, at the beginning of the present year, $74,412,832, which is $16,062,994 more than they returned at the commencement of the year 1857. But as this extraordinary augmentation cannot be ascribed to any permanent causes, it is probable that the specie in the banks will be considerably less at the close of the present year than it was at the beginning of it. The causes of the increase have been the suspension of specie payments by the banks, and the unprecedented accumulation of coin in the banks of the cities of New York and New Orleans, chiefly in the former.

Adding to the capital of the chartered banks $140,000,000 for the capital of the unchartered, and $7,000,000, a low estimate, for the 51 non-reporting banks, the whole bank capital in the United States will be upwards of $541,000,000. The estimate of the private banking capital is not believed to be at all an exaggerated one. My predecessor in this department, Mr. Guthrie, attempted in the year 1855, to ascertain the amount of unchartered bank capital throughout the Union, and the returns received showed a total of $118,036,000. But those returns are known to have been very incomplete, and the sum of $22,000,000 may be very safely added for omissions then and for additions since.

The capital of the chartered banks, and also of the unchartered, is understood to be capital actually paid in, though paid without doubt, principally in paper currency and stocks of various kinds—State bonds, railroad stock, and bank notes of all kinds and of various degrees of credit. I have the honor to be, very respectfully, your obedient servant,

HOWELL COBB, Secretary of the Treasury.

HON. JAMES L. ORR, Speaker of the House of Representatives.

COMPARATIVE VIEW OF THE CONDITION OF THE BANKS OF THE UNITED STATES.

	1855.	1856.	1857.	1858.
Number of banks.....	1,163	1,255	1,283	1,284
Number of branches.....	144	143	133	138
Number of banks & branches	1,307	1,398	1,416	1,422
Capital paid in.....	$332,177,288	$343,874,272	$370,834,686	$394,622,799

RESOURCES.

	1855.	1856.	1857.	1858.
Loans and discounts	$576,144,758	$634,183,280	$684,456,887	$583,165,242
Stocks	52,727,082	49,485,215	59,272,329	60,305,260
Real estate	24,073,801	20,865,867	26,124,522	28,755,834
Other investments	8,734,540	8,822,516	5,920,336	6,075,906
Due by other banks	55,738,735	62,639,725	65,849,205	58,052,802
Notes of other banks	23,429,518	24,779,049	28.124,008	22,447,436
Specie funds	21,935,738	19,937,710	25,081,641	15,380,441
Specie	53,944,546	59,314,063	58,349,838	74,412,832

LIABILITIES.

Circulation	$186,952,223	$195,747,950	$214,778,822	$155,208,844
Deposits	190,400,342	212,705,662	230,351,352	185,932,049
Due to other banks	45,156,697	52,719,956	57,674,333	51,169,875
Other liabilities	15,599,628	12,227,867	19,816,850	14,166,718
Aggregate of immediate liabilities *a*	422,509,262	461,173,568	502,804,507	392,810,268
A'gregte, immediate m'ans, *b*.	158,048,537	166,670,547	177,404,692	170,293,511
Gold and silver in U. States treasury depositories	27,188,889	22,706,431	20,066,114	10,229,229
Total specie in banks and treasury depositories	81,133,435	82,020,494	78,415,952	84,642,061

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,983	$28,561,946	$6,490,403	$78,635,225	$13,601,357	$65,033,867
9	98,792,757	29,176,838	6,625,464	79,841,862	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,598,348	13,074,762	69,523,836
30	102,180,089	31,273,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,373,931	86,000,468	15,439,083	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,583	70,425,909
20	103,706,734	31,416,076	6,542,618	86,773,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 6	105,021,863	32,789,731	6,854,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,432	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,231	90,644,098	16,429,056	74,201,709
April 3	110,588,354	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,436	7,245,809	93,566,100	16,775,237	76,790,863
17	111,841,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111 868,456	35,064,213	7,481,814	98,438,506	17,875,203	80,563,808
8	112,741,955	35,453,146	7,735,056	101,165,806	19,438,661	81,727,146
16	114,199,288	34,730,728	7,502,975	101,884,168	18,284,868	83,599,295
22	115,658,082	34,047,446	7,807,445	101,917,869	17,620,131	84,297,738
29	116,650.943	31,496,144	7,252,616	99,351,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,880	101,489,585	17,982,648	83,506,887
12	116,022,152	33,367,258	7,367,725	100,787,073	16,503,899	84,283,194
19	117,797,547	32,396,456	7,297,631	102,149,470	16,818,521	85,280,987
26	118,823,401	31,948,089	7,215,689	101,961,682	15,825,983	86,135,699
July 3	119,812,407	33,830,232	7,458,190	106,803,210	17,267,927	89,535,283
10	118,863,937	34,705,593	7,571,373	106,420,723	18,168,757	88,260,956
17	119,164,222	35,328,184	7,346,946	107,101,061	17,046,961	90,054,100
24	118,946,482	35,315,243	7,351,065	105,490,896	15,365,206	90,105,690
31	119,850,456	35,712,107	7,408,365	106,456,080	15,310,157	91,145,873
Aug. 7	120,892,857	35,154.844	7,784,415	107,454,715	17,115,237	90,339,678
14	123,374,459	31,150,472	7,383,739	105,084,769	15,208,690	89,826,082

a. Circulation, deposits, and due to other banks.
b. Specie, specie funds, notes of other banks, and sums due from other banks.

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,230,320	$6,196,459	$7,442,142	$2,297,348	.....
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,370	2,838,878	$816,132
19...	17,818,222	9,942,880	4,224,042	10,996,494	3,526,929	1,266,660
26...	17,741,355	10,320,714	4,336,624	11,579,048	3,951,212	1,363,478
Jan. 2...	18,149,456	10,505,182	4,535,951	11,948,905	4,114,622	1,590,072
9...	.....	10,626,260	4,778,539	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,608	5,095,771	1,552,855
23...	14,559,131	10,693,330	4,767,816	12,573,173	5,201,368	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,136	1,379,908
Feb. 6...	14,490,001	11,187,298	5,037,906	14,539,408	5,934,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,868,885	6,624,657	1,283,609
20...	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,034
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,832,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,347	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,484	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,686	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,458,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,634	15,658,182	9,321,352	1,410,349
17...	16,480,547	10,854,012	7,685,539	15,640,948	9,035,522	1,381,527
24...	16,094,721	10,798,455	7,828,899	15,589,151	9,221,277	1,473,994
May 1...	15,933,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,882
8...	15,459,435	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,658	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,534	10,257,171	7,965,484	.....	8,269,260	1,102,648
12...	12,828,721	10,312,287	7,943,819	15,464,347	8,533,964	1,009,370
19...	12,874,123	10,208,900	7,645,844	15,714,302	8,720,257	1,119,317
26...	12,890,984	10,423,080	7,323,084	15,676,134	8,110,788	1,034,117
July 3...	12,291,555	10,676,674	7,962,959	16,013,100	7,890,863	1,061,242
10...	12,116,486	10,755,126	7,671,824	14,114,217	6,970,157	1,192,675
17...	11,981,985	10,877,768	7,452,104	14,078,294	7,427,930	1,244,213
24...	11,985,231	10,936,870	7,334,414	13,864,925	6,348,192	1,336,398
31...	12,011,616	10,992,148	7,231,739	15,262,173	6,053,229	1,402,012
Aug. 7...	12,452,664	10,835,005	7,135,389	15,200,271	.....	.....

PITTSBURG BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due banks
April 12.....	$5,513,821	$1,194,282	$1,287,095	$1,305,294	$70,236
19.....	5,570,585	1,220,633	1,291,091	1,345,062	87,713
26.....	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May 3.....	5,784,492	1,192,216	1,360,551	1,504,549	40,312
10.....	5,768,651	1,171,627	1,365,551	1,585,182	74,491
17.....	5,787,072	1,191,663	1,373,401	1,491,620	111,260
24.....	5,769,868	1,175,334	1,371,586	1,464,767	124,044
31.....	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June 7.....	5,895,461	1,207,637	1,426,586	1,540,926	90,384
14.....	5,865,951	1,218,342	1,385,926	1,556,862	103,994
21.....	5,886,952	1,223,759	1,366,481	1,571,589	134,480
28.....	5,874,782	1,266,195	1,377,096	1,630,570	125,743
July 5.....	6,014,676	1,246,588	1,436,651	1,699,196	85,698
12.....	6,016,509	1,229,383	1,458,776	1,691,758	157,608
19.....	6,016,404	1,249,398	1,475,351	1,720,691	165,257
26.....	6,077,608	1,256,026	1,439,916	1,708,210	188,551
Aug. 2.....	6,009,453	1,198,767	1,423,669	1,730,650	188,242
7.....	5,975,321	1,236,485	1,378,231	1,788,792	186,835

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,302,374	$3,770,701	$1,911,033	$11,465,263	....
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512.765	....
Jan. 25....	20,780,958	4,243,966	1,062,192	11,547,697	.....
Feb. 1....	20,423,704	4,465,693	1,096,462	12,195 126	.....
Feb. 8....	20,359,226	4.668,085	1,293,046	11,904,519	.....
Feb. 15....	20,071,474	4,888,983	1,559,218	11,889,342	.....
Feb. 22....	20,161,260	4,924,906	1,686.689	12,014,605	.....
Mar. 1....	20,251,066	4,903,936	1,808,784	11,830,532	.....
Mar. 9 ...	20,471.161	5,147,615	1,916,352	12,253,282	.....
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	.....
Mar. 23....	20,796,957	5,4*8,358	2,140,463	12,413,191	.....
Mar. 30....	21,020,198	5,661.782	2,296,444	13,201,599	.....
Apr. 6....	21,657,152	5,937,595	2,647,399	13,422,318	3.056,181
Apr. 12....	21,656,028	6 133,000	2,675,193	13,764,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,800	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,243,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,973
May 17....	22,592,841	7,019,204	2,351,709	15,548,237	3,055,076
May 24....	22,969,576	6,963,871	2,410,181	15,854,423	3,221,858
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,306	3,565 213
June 21....	23,803,903	6,873,971	2,365,435	15,857,904	3,504,300
June 28....	24,060,708	6,664,681	2,389,252	16,356,129	3,101,201
July 5....	24,311,928	6,835,877	2,431,181	16,566,846	2,986,297
July 12....	23,783,792	6,399,754	2,422,411	15,898,464	3,369,430
July 19....	24,555,873	6,868,596	2,548,945	16,937,585	3,351,204
July 26....	24,570,778	6,956,440	2,514,345	17,196,794	3,291,107
Aug. 2....	24,524,569	7,070,145	2,505,278	17,533,780	3,234,866
Aug. 9....	24,542,291	6,882,660	2,534,652	17,054,076	3,176,333

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
April 10.....	$1,255,694	$1,788,970	$1,673,628
17	1,161,065	1,793,945	1,720,728
24..... .	1,250,295	1,832,915	1,770,882
May 8.....	1,369,316	1,240,431	1,959,823
15.....	1,494,025	1,864,960	2,161,503
22.....	1,547,938	1,825,810	2,225,285
29.....	1,543,531	1,921,475	2,396,027
June 5.....	1,557,119	2,087,890	2,452.141
12.....	1,471,190	2,101,405	2,536,707
19.....	1,459,735	2,161,985	2,465.372
26.....	1,417,340	2,005,505	2,434.398
July 3.....	1,523,179	2,246.835	2,320,758
10.....	1,445,704	2,260,560	2,315,635
17.....	1,490,876	2,190.955	2,322 245
24.....	1,494,116	2,161,370	2,238.498
31.....	1,487,256	2,159,540	2,169.387
Aug. 7..... .	1,531,723	2,079,225	2,108,988

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks.
Jan. 11.....	$17,701,725	$565,553	$1,552,822	$2,025,956	$1,338,435
Mar. 15.....	16,925,349	520,828	1,310,787	1,903,082	1,043,930
Apr. 5.....	17,037,949	591 861	1,409.695	1,946,998	1,080,817
19.....	17,169,822	564,033	1,485,226	1,965,316	996,961
May 3.....	17,203,225	566.869	1,393,553	2,068,335	1,089,333
17.....	17,054,877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,555,717	2,088,873	1,208,543
June 21.....	17,845,487	573,317	1,604,850	1,988,496	1,170,711
July 5.....	17,653,908	523,691	1,810,047	2,402,956	1,010,101
July 19.....	17,8 7,068	466,266	2,039,911	2,079,183	1,145,364
Aug. 2.....	17,780,220	444,165	1,921,812	2,022,092	1,095,896

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Dec. 22....	$50,209,500	$4,579,000	$5,627,000	$15,606,000	$4,054,800	$5,888,000
29....	50,377,000	4,789,500	5,130,400	16,326,600	3,998,000	5,688,000
Jan. 5....	50,726,800	5,028,000	5,416,000	17,073,800	3,911,000	5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,368,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25....	51,772,412	6,073,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,395,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,137,972	7,079,606	5,898,660	18,429,945	5,568,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,329,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,137,000
15....	52,068,743	7,559,698	5,291,549	18,909,682	5,887,534	6,011,377
22....	51,999,451	7,235,531	5,168,492	19,029,251	.....	.....
29....	51,632,451	7,905,491	5,159,569	18,895,249	.....	.....
April 5....	51,918,000	8,259,500	5,477,500	20,136,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	.....	.....
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,533	7,363,702
May 4....	51,499,700	9,243,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,903,020	20,846,860	6,530,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,037	7,265,607	6,399,061
14....	53,951,032	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268
21....	54,162,119	9,457,831	5,703,699	20,764,739	7,804,896	5,809,542
28....	54,780,644	9,119,604	5,633,176	20,833,942	7,827,075	5,674,795
July 5....	55,808,453	9,104,461	6,313,049	21,570,803	8,089,162	6,357,413
12....	56,200,929	9,000,663	6,538,325	21,075,247	8,526,510	6,299,019
19....	56,626,264	8,930,757	6,236,698	21,462,437	8,565,647	6,023,415
26....	56,602,469	8,943,004	6,268,745	21,456,471	8,658,185	6,268,745
Aug. 2....	56,250,500	8,883,400	5,869,800	21,161,000	8,467,000	5,757,000
9....	56,096,805	8,985,526	6,238,221	21,051,519	8,445,734	6,112,023

VALUATION, POPULATION, AND TAXES IN THE CITY OF NEW YORK.

The growth of property in the city of New York is remarkable. The assessments of the present year, as compared with 1850, when gold was first confirmed in California, are as follows:—

Years.	Real.	Personal.	Total.	Taxes.	Populat'n.
1842....	$176,512,342	$61,294,659	$237,806,800	$1,100,000	325,000
1850....	207,141,436	78,919,240	288,060,676	3,005,762	515,394
1858....	368,346,296	162,847,994	531,194,290	8,470,741	676,000

In the eight years up to 1850, the property of the city increased but $51,000,000, real and personal. In the last eight years, it has increased $243,000,000, or more than the total value of 1842; that is to say, the value of property in the city has doubled since the gold discoveries. The number of aliens in the city in 1842 was 60,946, leaving 264,054 American population. In 1855, the number of aliens was 232,678, leaving 397,142 American population—an increase of 133,088 persons, with an increase of $192,000,000 in real estate, or $1,500 per head of those entitled to hold real estate.

The amount of rents at 10 per cent, which must cover taxes, Croton water, insurance, wear and tear, and interest, should this year be $36,800,000, against $17,600,000 in 1842—a rise of $19,000,000, of which $7,300,000 are taxes. This gross rent, divided among 125,000 families, would give an annual average

of $300 each, while 65,000 families in 1842 paid apparently $270 each. It is not, however, the case that the rise in rents has been in proportion to the population. Thus, the 11th ward shows as follows:—

	1840.	1858.
Population	17,052	52,979
Real estate	$3,987,025	$8,429,800

The population has increased three-fold, and the real estate but little more than doubled. The increase in value of the old lower wards has not been much. The 1st ward has decreased $2,000,000 since 1852, and its population has decreased 6,000. The 5th ward shows a curious result, as follows:—

	1850.	1858.	Decrease.	Increase.
Population	22,691	21,617	1,074	.....
Valuation	$9,740,650	$15,273,900	....	$5,532,250

This is the direct effect of the progress of business up town. The dwellings have been turned into stores. The proportion of population and valuation above and below 14th-street have been as follows:—

Years.	Below 14th-street. Population.	Valuation.	Above 14th-street. Population.	Valuation.
1850	402,035	$140,542,027	113,359	$111,644,726
1858	282,541	189,588,085	347,269	178,257,311
Decrease	119,494	.....	.....	.....
Increase	.....	$49,046,958	233,910	$66,602,585

These figures show to what an extent the population of the lower wards have followed the line of the railroads up town. The real estate they left took a new value from stores, and that which they went to received a new one from dwellings.

NEW YORK ASSAY-OFFICE.

The importance of this establishment to the commerce of our city is daily becoming more obvious. Since the commencement of its operations, (October 10th, 1854,) the amount of gold converted into fine bars has been over seventy-three millions of dollars, in a period of forty-five months, or about $1,625,000, on an average, per week. For remittances abroad these bars serve as good a purpose as the gold coin. At the French or English mint, no distinction is made in the value between the coin and the bars. With the prospect before us of still larger accessions of gold from the Pacific shores, it is probable that the capacity of the Assay-office to execute all orders given to it, will be fully tested.

The amount of deposits for the last six months are somewhat in excess of the corresponding period of the year 1857. We are indebted to the politeness of Mr. Cisco, assistant treasurer, for the following recapitulation:—

FINE GOLD BARS MANUFACTURED AT THE UNITED STATES ASSAY-OFFICE, NEW YORK, FROM THE COMMENCEMENT OF ITS OPERATIONS, (OCTOBER 10TH, 1854,) TO JUNE 30, 1858.

Quarters.	1854.	1855.	1856.	1857.	1858.
1st	.....	$3,401,465 78	$6,060,956 34	$3,270,501 77	$3,295,435 41
2d	.....	4,204,032 16	2,924,367 69	5,326,069 29	5,408,713 67
3d	.....	6,024,577 99	4,155,798 88	5,681,019 82	.....
4th	$2,888,059 18	6,811,737 70	6,234,926 98	7,413,522 14	.....
Total	2,888,059 18	20,441,813 63	19,396,049 89	21,691,113 02	8,704,149 08
Grand total					$73,121,184 80

In the absence of an Assay-office at this port, for the past four years, all this accumulated gold must necessarily have been sent to Philadelphia for coinage at the mint, involving a loss to the owners of $73,121 for express charges alone, besides delays, and besides the additional expense for conversion into coin. Upon inquiry, we find that the express charges to Philadelphia are fifty cents per thousand dollars :—

Equivalent on the whole sum of $73,121,184 to	$36,560
And return	36,560
	73,121
Add ½ per cent for coinage	365,600
Total cost avoided	$438,711

from which deduct the small charge for conversion into bars.

FINANCIAL ACCOUNTS OF THE STATES OF THE UNION.

VIRGINIA.

The last Annual Message of Gov. Henry A. Wise, of Virginia, contains some details of the operations of the treasury of that State for the fiscal year ending September 30, 1857, as prepared by the Auditor of Public Accounts :—

RECEIPTS.

Taxation and other ordinary sources of revenue and capitation tax	$2,881,858 24
Dividends on bank stock	214,518 00
Internal improvement fund	180,000 00
Sales of twelve months' treasury notes	770,590 00
Sales of 1,082 shares of stock of the Northwestern Bank of Virginia	118,671 42
Unclaimed dividends	4,620 77
Voluntary enslavements	475 00
Refunding warrants erroneously issued	4,015 00
Total to September 30	$4,119,748 48

EXPENSES.

Sinking Fund	$2,054,261 49
Expense of the Sinking Fund	697 50
Interest on bonds of the James River and Kanawha Company, guarantied by the Commonwealth	67,892 90
Interest on debt due to the Literary Fund	14,124 22
Interest on treasury notes	55,256 68
Interest on public debt, in part payment of the principal thereof, and expense of Sinking Fund	$2,191,735 79
In full of temporary loans obtained from banks	51,500 00
In redemption of treasury notes, principal	1,028,450 00
Ordinary expenses of government, &c., including $44,217 50 for re-assessment of lands, and $110,580 for capitation tax	846,887 64
Total	$4,113,573 43
Available balance in treasury, September 30th, 1857	37,124 81

The operations of the several public funds for the year are reported by J. S. Calvert, Esq., as follows :—

Funds.	Balance. 1856.	Year to September 30, 1857. Receipts.	Expenses.	Balance. 1857.
Commonwealth	$30,956 19	$4,119,704 43	$4,113,579 81	$37,124 81
Literary	37,712 35	228,142 30	229,659 91	36,195 74
Public works	3,576 94	1,310,319 35	1,299,176 75	14,719 54
Sinking	1,126 60	2,097,610 95	1,806,805 72	291,931 83
Total	$72,372 08	$7,755,821 03	$7,449,222 19	$379,971 92

In relation to the receipts, the treasurer remarks that it is the amount received into the treasury. But it embraces portions of the items received for "Literary Fund," "Board of Public Works," and "Sinking Fund," which in the form of keeping the books are credited twice—thus, $60,580 10 of the "Literary Fund" receipts and disbursements was received from "General Fund;" $599,600 of the "Board of Public Works" receipts and disbursements was received from "General Fund;" and $2,054,924 49 of the "Sinking Fund" receipts and disbursements was received from "General Fund." So that the actual receipts and disbursements were $5,114,087 52.

The following is an official summary of the funded debt of Virginia on the 30th of September, 1857:—

Amount of certificates of registered debt	$14,469,015 68
Deduct amount of same to be redeemed as provided by Commissioners of the Sinking Fund	228,100 00
Amount of registered debt	$14,240,915 68
Amount of certificates of debt issued in the form of coupon bonds and payable in New York	11,367,000 00
Amount of do., (5 per cent,) payable in London	1,875,000 00
Actual public debt, 1st October, 1857	$27,482,915 68

MISSISSIPPI VALUATION.

The annexed valuation of the State of Mississippi, according to the returns of the Auditor, M. Mafee, Esq., were as follows:—

Assessed value of taxable lands in 1857	$141,749,429 82
" " " " 1854	91,613,154 54
Increase in valuation	$50,126,254 30
No. of taxable slaves assessed in 1857	368,182
" " " in 1856	349,731
Increase in 1857 over 1856	18,451

If the average increase of slaves be estimated at $600, it would show the slave property of the State to be worth $220,902,200.

CINCINNATI CITY DEBT.

On the 1st of July, the city of Cincinnati paid the following sums of semi-annual interest upon its outstanding indebtedness. The valuation of Hamilton County is $120,890,791. The city owns property to the extent of $6,726,039, and its whole debt is $3,719,000. The annual taxes are $671,911.

	Value.	Interest.
Stock in Little Miami Railroad	$80,000	$2,400
Loan to same road	100,000	8,000
Stock in White Water Canal	400,000	12,000
Loan to same canal	30,000	900
To fund floating debt of the city	80,000	2,000
" " "	150,000	4,500
Purchase money of city lot	60,000	1,800
Purchase of wharf property	470,000	14,220
Loaned to Cincinnati and Marietta Railroad	150,000	4,500
Exchange on above on New York and Philadelphia	.....	334
Total	$1,524,000	$45,654

FOREIGN COINS—OFFICIAL VALUE.

The following table of foreign coins, with their equivalents in United States currency, gold valuation, has been prepared at the request of the Controller of the Treasury, November, 1857, for the use of the government, in computing the salaries of foreign ministers and others. It is generally supposed that the value of foreign coins is fixed by law, but such is not the case. The coins of foreign countries are not a legal tender in the payment of debts, though they are taken at their valuation at the mint. In view of these facts, the table annexed is especially important:—

			d.	c.	m.
Austria	Specie dollar	Silver	1	02	5
"	Florin	"		51	2
Brazil	Milreis	"	1	02	5
Belgium*	Franc	Gold		19	2
"	"	Silver		19	6
Bremen	Rix dollar	Money of account		75	0
Buenos Ayres	Doubloon	Gold	15	50	0
Central America	Dollar	Silver	1	00	0
Chile	" old	"	1	06	0
"	" new	"		96	2
China	Tael	Money of account	1	48	0
Denmark	Specie daler	Silver	1	10	7
"	Rigs-bk daler	"		55	3
England	Pound sterling	Gold	4	84	8
France*	Franc	"		19	2
"	Twenty franc piece	Gold, being	3	84	0
"	Franc	Silver		19	6
Germany, N.	Thaler	"		72	0
" S.	Florin	"		41	7
Hamburg	Marco banco	Money of account		37	0
India	Rupee	Silver		46	2
"	Star pagoda	Gold	1	81	5
Lombardy	Lira	Silver		17	6
Mexico	Dollar	"	1	06	0
Naples	Scudo	"	1	00	0
"	Carlin	"		07	4
"	Onzia (ounce)	Gold	2	48	4
"	Ducat	Money of account		83	6
Netherlands	Guilder	Silver		41	0
Norway	Specie daler	"	1	10	1
Peru	Dollar, new	"		95	7
"	" old	"	1	06	0
Portugal	Milreis	"	1	18	0
Prussia	Thaler	"		72	0
Rome	Scudo	"	1	06	0
Russia	Rouble	"		79	0
Sardinia	Franc or lira	"		19	6
Spain	Real vellon	"		05	0
"	New doubloon	Gold	4	96	3
"	New Peninsula dollar	Silver (peso of 20 reals.)	1	01	5
Sweden	Specie daler	"	1	11	4
Turkey	Piastre	Gold or silver		04	4
Tuscany	Florin	Silver		27	7

Four of the above, being moneys of account only, are estimated by their legal relation to certain coins.

JAMES ROSS SNOWDEN, Director of the mint.

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* The actual currency of both these countries is gold, and computations are of course made in reference to that medium. Like the United States, they have the double standard, but silver only circulates for small change, and its value cannot be regarded in computing pecuniary obligations.

FINANCES OF RICHMOND, VA.

The revenue from direct taxation last year was $294,831 86, of which $1,607 were collected from delinquents of the past four years. The amount received direct from the City Collector was $293,224 87. The following is a complete statement of the receipts from taxation for the past four years, viz. :—

1854.	1855.	1856.	1857.
$161,235	$281,795	$315,290	$293,224

WATER WORKS.

The estimate of receipts from water rents, etc., last year, was $32,500, and the disbursements, exclusive of the appropriation for the culvert at the pump house, $20,000. The actual results were :—

	1857–8.	1856–7.
Receipts	$30,521 80	$30,970 15
Disbursements	27,316 38	22,651 04
Difference	$3,205 42	$8,319 11

GAS WORKS.

The receipts from consumers of gas, etc., last year, were $81,625 57, or $6,625 more than the estimate. The disbursements were $58,255 65 for current expenses, and $17,162 45 for construction, making a total of 75,417 10.

LOANS, ECT.

During the past year the funded debt of the city was diminished by the amount of $111,984 99, with the aid of a temporary loan, $40,000 of which had not been returned at the end of the fiscal year, but has since been refunded, we understand.

The amount of six per cent certificates paid was		$425,122 00
Amount of temporary loan refunded		46,129 25
Total disbursement		$471,251 25
Received from bonds sold	$295,461 83	
Bills payable	79,586 66	
		375,048 49
Difference		$96,202 76

The receipts and expenditures were as follows :—

	Receipts.	Disbursements.
Taxes	$294,831 86	.....
Loans, &c.	375,048 49	$471,251 25
Gas works	81,625 57	75,417 10
Water works	30,521 80	27,316 38
Culverts	1,689 98	18,870 21
Markets	8,582 64	3,567 72
Burying grounds	695 25	2,998 01
Miscellaneous	24,001 49	246,350 18
Balance on hand March 1st, 1857	58,474 44	.....
" " March 1st, 1858	.....	29,650 53
	$875,421 88	$875,421 88

The expenditures during the preceding fiscal year for repairs of streets were $11,719 36 ; public buildings, $3,855 33 ; eleemosynary, $18,065 09 ; city government, etc., $38,527 47 ; firemen and volunteers, $8,536 84 ; other items, exclusive of interest, etc., $30,481 20—total, $111,185 29. Total for same items of 1857–58, $124,202 64.

GOLD AND SILVER.

A return of the imports and exports of gold and silver, as laid before the Committee of the House of Commons, (now sitting,) for the past seven years, (1851 to the close of 1857.) produce the following results :—

Imports of gold into Europe from producing countries in seven years, to the end of 1857		£130,000,000
Imports of silver		29,870,000
Total		£159,870,000
Exports of gold beyond Europe	£22,500,000	
Exports of silver to India and China	56,670,000	
		£79,170,000
Estimated increase to stock of bullion in Europe		£80,700,000

Or the equivalent of four hundred millions of dollars.

From a statement compiled by Mr. James Low, showing the amount of specie shipped by the Indian steamers of the Peninsula and Oriental Company during the first six months of the present year, we have derived the following abstract :—

	Gold.	Silver.
Total in January	£16,019	£589,642
Total in February	20,316	825,188
Total in March	13,282	539,233
Total in April	8,731	115,530
Total in May	7,263	271,615
Total in June	2,190	592,637
Total in six months	£67,801	£2,933,845

For the corresponding period of last year the total was £36,202 in gold, and no less than £8,674,349 in silver. The exports for the East from Marseilles and the Mediterranean ports have been £80,873 in gold and £510,872 in silver, against £30,408 and £1,814,991 in the corresponding six months last year. Consequently the East has absorbed in 1858, £7,012,649 less specie than in 1857.

SALE OF THE PENNSYLVANIA CANAL.

The Sunbury and Erie Railroad Company have sold the Delaware Division of the Pennsylvania Canal to a company of ten or twelve of the leading capitalists of this city, viz :—I. V. Williamson, A. S. & E. Roberts, J. G. Fell, E. W. Clarke & Co., Wm. Longstreth, the Messrs. Borie, Charles Henry Fisher, Judge Hepburne, Ephraim Marsh, of New Jersey, and some others. The parties are of unquestioned means, and wholly unexceptionable as purchasers on the score of ability and probity of character. The price stipulated to be paid is one million seven hundred and seventy-five thousand dollars! payable as follows :—

Mortgage bonds at six per cent	$1,200,000
Preferred eight per cent stock	100,000
Ten monthly payments of $40,000, secured by collateral	400,000
Cash, on execution of the papers	75,000
	$1,775,000

This bargain was approved by George Packer, on Saturday last, and is of course complete. The cash payment of $75,000 was made, and the purchasers organized into a company, under the title of the Delaware Division of Pennsylvania Canal Company, and elected Jay Cook, Esq., of the firm of E. W. Clarke & Co., president. After the sale was made, it is said, an offer of two millions was made, on behalf of the Lehigh Navigation Company, but it was considered too late, the sale having already been completed, and frequent attempts having already been made previously to obtain a bid from that company.

STATISTICS OF TRADE AND COMMERCE.

CALIFORNIA.

The progress of the State of California, independent of its gold, has been immense in the last few years. We are to remember that ten years ago California was hardly known on the Atlantic. Its population was nominal. It has now 500,000 inhabitants, who produce great wealth in addition to the gold. Its agricultural resources are large, quite equal to its wants, while its numbers and industry have grown rapidly. In ten years its annual valuation has been as follows, since the organization of the State government, premising that the falling off noticeable between 1854 and 1856, was attributable to previous real estate and quartz inflations, and their consequent fall. The progress had been steady to 1854, and the assessments of 1857 show that the recuperative ability of the country amended the lapsis which speculation made :—

1850 ...	$57,670,689 00	1853....	$95,335,646 00	1856....	$95,007,440 97
1851....	49,231,052 00	1854....	111,191,600 00	1857....	125,559,461 82
1852....	64,588,375 00	1855....	103,897,193 55		

The report of the State Controller contains the revenue and expenditures for the year. The following figures refer to the fiscal year ending June 30th, 1857 :—

Aggregate receipts, State Treasury	$799.795 90
Aggregate disbursements	719,103 50
Balance	$80,692 40

The estimate for the ninth fiscal year, ending June 30th, 1858, are as follows :—

Receipts	$808,177 20
Expenditures	674,067 00
Balance	$134,110 20
Excess of 1857	80,692 40
Balance in Treasury, June 30, 1858	$214,802 60

These figures show a very gratifying result, and one that should place the credit of California high upon the list of solvent States. The failure on the part of the Treasurer of the City and County of San Francisco to provide for the payment in New York of the coupons on the civil debt, due January 1st, 1858, seems, however, to have been no fault of the treasurer, but was owing to an injunction sued out against him by the commissioners of the funded debt, restraining him from paying out money from the public treasury, unless beyond the amount of their claim, $197,000. Now, as the treasury had been pretty well exhausted by other payments, among which was the school bond interest, also payable in New York, and a large amount of taxes remained unpaid, the treasurer was unable to forward the money, as he would otherwise have done, and desired that the coupons be forwarded there for payment.

The grain products of the last ten years were as follows :—

Years.	Wheat, bush.	Barley, bush.	Oats, bush.	Potatoes, bush.
1856	3,150,665	3,802,299	1,053,133	.....
1857	2,212,025	4,116,367	993,306	1,221,878

The exports of wool for 1857 were 1,000,000 pounds. The imports for 1857 were as follows:—

Entered for consumption	$4,410,265
Entered for warehouse	1,987,101

The imports and exports for the first six months of 1858 were as follows:—

Years.	For consumption.	Warehouse.	Withdrawn.
1857	$1,907,553	$958,952	$568,180
1858	2,139,946	705,911	820,034

From the foregoing data it will be seen that the productive industry of the country, as evidenced by the amounts of treasure and merchandise exported, has nearly kept pace with the two previous seasons, yet there has been a material reduction in the bulk of goods that have been imported from abroad. It is well known, however, that the amount of wealth being accumulated and held in the country is considerably on the increase, and had it not been for the unexpected movement of a large number of the mining population, over 10,000 having emigrated to the newly-discovered gold fields in the British Possessions, there is no doubt but the present year would have realized for California in advancement all that was so confidently predicted for it. The withdrawal of so large a number of the active producing population will soon be felt in the decreased yield of the mines, while the effect upon the trade in the interior of the State has been much more disastrous than the diminution of population would warrant. Accounts from up-country towns represent business as completely prostrated. This result could not have ensued from the reduction of population, but it would seem that confidence has been so shaken by the movement that has already taken place, and the doubt as to what extent it may yet eventually culminate, that business has been curtailed by merchants both in their purchases, and by requiring cash for sales that were hitherto made on short credit. There is no doubt that this state of things has materially injured the interests of many persons, depreciating, though but temporarily it is hoped, the value of all descriptions of property.

The value of freights paid for the year was as follows:—

Freights paid in 1857	$2,618,798
Freights paid in 1858, (six months)	1,275,816

Among the imports into California rice figures largely. The receipts of foreign in 1857 reach the enormous amount of 517,525 mats, equal to 30,666,113 pounds. The stock on the 1st January was estimated at 3,000,000 pounds, giving a total of 33,666,113 pounds for the year. The consumption is set down by dealers at 1,500,000 pounds per month, but as Chinamen consume less of rice, proportionably with other food, the longer they remain in the country, it is doubtful whether this rate, though it may have been correct formerly, might not be considered excessive at present. But as a basis of calculation we will assume the rate named, and therein endeavor to approximate to the stock of foreign rice on hand:—

Stock, January 1st, 1857 ..... lbs.	3,000,000
Received during 1857	30,666,113
Total	33,666,113
Consumed in twelve months in the State	18,000,000
Present stock	15,666,113

Imports since January 1st have been as follows:—

China.....lbs.	5,011,965	Manilla.....lbs.	1,324,000
Batavia.....	770,600	Siam.....	1,533,333
Calcutta.....	275,000		
Total East India.....			8,914,898

In sugar the receipts of the year were, of raw, 170,712 mats, (equal to 17,082,564 pounds,) and 104 hogsheads; and of refined, 14,000 barrels, 7,618 half-barrels, 333 casks. The whole stock of light colored sugars, suitable for jobbers, is estimated at 1,070,000 pounds. The stock of raw sugars, (not including the stock of the San Francisco refinery,) may be thus estimated:—

Light grades.....lbs.		1,070,000
Dark grades.....		1,950,000
Total.....		3,020,000

Importations of raw since January 1st have been as follows:—

China.....lbs.	4,258,125	Mauritius.....lbs.	514,357
Batavia.....	790,900	Sandwich Islands.....	695,223
Mexican	11,600	Brazilian.....	32,000
Peruvian.....	161,069		
Total.....			6,463,264

To afford an idea approximating to the nationality of population arriving and departing by sea during 1856 and 1857, we submit the following tables for the entire years respectively:—

	1856.		1857.	
	Arrivals.	Departures.	Arrivals.	Departures.
Panama.....	19,101	12,468	17,596	13,357
San Juan.....	4,178	5,335	43	....
Atlantic ports direct.....	39	28	33	10
China.....	4,807	3,028	5,924	1,932
Sandwich Islands.....	496	249	411	187
Pacific Islands.....	44	33	8	33
Chile.....	67	344	20	127
Mexico.....	220	600	214	673
Peru.....	9	144	....	....
Central and South America.....	1	7	93	200
East Indies.....	14	14	6	4
Australia.....	225	487	128	369
Great Britain direct.....	15	....	44	....
France direct.....	264	....	....	....
Holland direct.....	71	....	....	....
Continent of Europe.....	....	....	225	....
British North American Possessions..	10	9	11	5
Russian Possessions.....	69	1	3	5
Total.....	29,630	22,747	24,759	16,902

The Frazer's River movement had of course much affected the mines. There had been received at San Francisco 1,200 ounces of this gold, averaging $16 40 per ounce. The operations of the California mint for six months were as follows:—

DEPOSITS AND COINAGE AT THE UNITED STATES BRANCH MINT FOR THE SIX MONTHS ENDING JUNE 30, 1858.

	DEPOSITS.		COINAGE			
	Gold, ozs.	Value.	Gold.	Silver.	Unparted bars.	Total.
January.	40,001.63	$782,766 50	$811,800	$50,250	$261,739 41	$1,123,789 41
Febru'ry	77,770.73	1,421,594 02	700,000	.....	228,522 07	928,522 07
March ..	120,760.44	2,228,588 45	1,880,000	22,000	326,084 17	2,228,084 17
April...	120,744.41	2,223,905 06	2,020,000	6,000	....	2,026,000 00
May ...	154,159.46	2,896,127 72	2,560,000	.....	....	2,560,000 00
June....	119,951.02	2,264,860 90	2,641,000	.....	....	2,641,000 00
Total.	633,387.69	11,767,842 65	10,612,800	78,250	816,295 65	11,507,345 65

DESCRIPTION OF COINAGE.

GOLD.	Pieces.	Value.	SILVER.	Pieces.	Value.
Double eagles .	519,440	$10,388,800 00	Half-dollars....	146,000	$73,000 00
Eagles	11,800	118,000 00	Quarter-dollars.	9,000	2,250 00
Half-eagles.....	18,600	93 000 00	Dimes.....	30,000	3,000 00
Quarter-eagles.	1,200	3,000 00			
Dollars.....	10,000	10,000 00	Total.....	746,528	$11,507,345 65
Unparted bars.	488	816,295 65			

The imports of treasure for six months, including $19,680 of Frazer's River gold, was $1,028,985, and the exports of gold and other merchandise for the same period was as follows :—

GOLD.		MERCHANDISE.	
New York.....	$17,565,735 62	New York.....	$570,000
England.....	4,624,586 58	Sandwich Islands.....	100,103
Panama.....	152,126 80	Mexican ports.....	408,874
New Orleans.....	99,500 00	Valparaiso.....	28,347
Hong Kong	1,131,654 07	Hong Kong.....	150,347
Australia.....	1,436 07	Australia.....	104,550
Acapulco.....	3,000 00	Peru.....	95,170
Valparaiso.....	16,500 00	Society Islands.....	38,611
Manilla.....	11,000 00	Vancouver.....	161,724
Honolulu	21,528 32	Central America.....	7,370
Tahiti.....	2,000 00	Russian Possessions.....	61,366
Singapore.....	16,397 00	Batavia	6,778
Vancouver.....	500 00		
		Total	$1,727,990
Total.....	$23,545,663 96	Total, 1857.....	2,127,189
Total, 1857	28,658,999 00		

COMMERCE OF FRANCE.

The imports and exports of France for the past three years have been in actual value as follows, distinguishing the "general" from "special" commerce, the latter term signifying the imports for French consumption and the exports of French production; the former term the whole import and export :—

	Imports.		Exports.	
	General, francs.	Special, francs.	General, francs.	Special, francs.
1855.....	2,159,700,000	1,894,100,000	2,167,000,000	1,557,900,000
1856.....	2,740,900,000	1,989,800,000	2,659,000,000	1,893,100,000
1857.....	2,689,000,000	1,872,900,000	2,639,800,000	1,865,900,000

The value of the exports last year was consequently over 28,000,000 francs below that of the preceding year. On the whole, these returns are less unfavorable, especially as regards the exclusive commerce of France, than from the commercial crisis of last year might have been expected; but it is to be remembered that the crisis broke out at the latter part of the year, and that the French, by means of extensive renewals of bills, staved off a great part of the consequences of it to the present year. The totals of French imports and exports, above given, do not comprise the precious metals. The total importation of gold in the three years, 1855, 1856, and 1857, was £56,584,000, and the total exportation £15,004,000—excess of imports, £41,580,000. The total importation of silver in the said three years was £13,164,000, and the exportation not less than £47,868,000—excess of exports, £34,704,000.

BREMEN COMMERCE.

The commerce of Bremen for the year 1851 has been comparatively as follows:—

TOBACCO.

	1854.	1855.	1856.	1857.
Import.....cwt.	7,050,369	9,521,996	10,917,267	11,290,676
Export.....	3,515,994	5,025,567	6,658,620	5,850,837
Together.....	10,566,363	14,547,562	17,605,887	17,441,513
	1854.	1855.	1856.	1857.
Import.....ld'r thaler	35,906,720	53,254,978	66,091,522	74,(04,780
Export.....	31,803,494	48,924,319	61,475,297	62,609,472
Together.....	67,710,214	102,179,297	127,566,819	136,614,252

The import and export of the principal articles were as follows:—

TOBACCO.

	1856.		1857.	
	Weight, pounds net.	Value, Ld'r thaler.	Weight, pounds net.	Value, Ld'r thaler.
Import.....	52,990,987	10,542,119	62,774,944	15,173,666
Export.....	56,766,721	11,067,707	46,252,808	11,561,211
STEMS.				
Import.....	12,173,919	365,068	11,677,528	734,609
Export.....	16,423,819	797,710	11,447,858	773,462
COTTON.				
Import.....	41,557,005	6,898,559	40,940,316	8,311,043
Export.....	42,787,418	7,595,707	36,074,019	8,000,941
SUGAR.				
Import.....	24,822,519	2,195,517	21,743,786	2,384,375
Export.....	14,734,753	2,207,449	14,157,124	1,691,819
RICE.				
Import.....	62,887,414	2,892,089	51,796,446	1,843,158
Export.....	38,559,927	1,798,800	28,666,606	1,289,925

COMMERCE OF BRAZIL.

The report of Senor Souza Franco, Finance Minister of Brazil, was made to the chamber in May, and contains the following figures.

The official value of the imports and exports of Brazil in 1856–57 amounted to £26.484,375. or upwards of 40 per cent above the average of the previous five years, and 27 per cent in excess of the value in 1855–56. Of that sum the value of the imports are £13,761,773, or 33 per cent greater than that of the previous year, and 39 per cent above the average of the previous five years. The value of the exports was £12.722,601, or 21 per cent more than that of 1855–56, and 42 per cent in excess of the quinquennial period. Of the imports of 1857 £8,190,116, or about 59½ per cent of the whole, came from England and her possessions; £1.830.674, or 13 per cent, from France; and £864,155, or 6 per cent, from the United States. Of the exports of that year those to England were valued at £3,954,128, or 31 per cent of the whole; those to France £1,058,611, or 8 per cent; those to the United States, £3,516,079, or 27 per cent. Thus, it appears that in 1856–57 the total trade of England with Brazil reached the enormous value of £12,144.244. "And yet," it is observed, "Brazil is the only country in the world, our commerce with which has not the security of a single treaty stipulation."

BRAZIL SUGAR.

The production of sugar in the Brazils is very large—much more so than is generally supposed. The consumption is also immense. The people are great tea and coffee drinkers, as well the peasantry as the higher classes, and the quantity of sweetmeats and preserves used is proverbially large. The consumption of sugar per head is quite equal to that of Cuba, which is estimated at 20 pounds; that of the United States averaged in the last four years 30 pounds per head, nearly the same as in England. The population of the Brazils is 8,000,000, of which 3.000,000 are negroes, who are great sugar eaters. This would give a consumption of 400,000,000 pounds, which is within the market. A great deal of sugar in the interior is lost for want of means of getting it to market. The quantities exported depend, in some degree, upon the price abroad. For these we are indebted to the politeness of the Brazilian Consul, L. D'Aguiar, Esq. The average for the last nine years is 271,673,307 pounds, or 65,770,103 pounds more than the average for the previous ten years. The production must therefore be equal to 700,000,000 pounds :—

EXPORTS OF SUGAR FROM BRAZIL, FISCAL YEARS ENDING JUNE 30.

1840-41.....lbs.	214,348,532	1848-49.....lbs.	272,180,768
1841-42.....	144,162,491	1849-50.....	255,794,752
1842-43.....	166,711,089	1850-51.....	317,051,720
1843-44.....	181,855,385	1851-52.....	288,759,728
1844-45.....	239,241,174	1852-53.....	341,808,008
1845-46.....	227,500,928	1853-54.....	256,510,048
1846-47.....	227,162,452	1854-55.....	254,765,504
1847-48.....	246,241,984	1855-56.....	236,520,928
Total.....	1,647,224,035	Total.....	2,173,386,456
Medium	205,903,004	Medium	271,673,307

THE FLOUR AND GRAIN TRADE OF BOSTON.

We give below a comparative view of the receipts of flour and grain at this port for the first six months of the present and corresponding period of the past year, as derived from the books of the Boston Corn Exchange Association :—

	1857.	1858.		1857.	1858.
Flour ....bbls.	448,696	495,424	Rye.....bush.	16,202	33,661
Corn.....bush.	992,993	1,393,798	Shorts.....	192,392	280,578
Oats.....	328,771	316,741			

This exhibit shows that, notwithstanding the general depression of trade, this important branch of our commerce is steadily increasing, the arrivals of breadstuffs for the half year ending June 30, exceeding those for the same period of last year. The stock of flour on hand at the present time is not large, the receipts having been light for some weeks.

SUGAR CROP—CUBA AND PORTO RICO.

The crops of sugar of Cuba and Porto Rico have been as follows :—

	Cuba.			Porto Rico,
	Hhds.	Boxes.	Total, tons.	pounds.
1854	186,151	1,227,147	349,502	.....
1855	207,935	1,292,119	376,475	91,971,108
1856	236,335	1,103,605	357,395	116,554,476
1857	301,394	953,797	369,611	79,879,700

EXPORTS OF WILMINGTON, NORTH CAROLINA.

The exports for the three months ending with June have been as follows :—

Articles.	1857. Coastwise.	1857. Foreign.	1858. Coastwise.	1858. Foreign.
Spirits turpentine .....bbls.	28,364	1,323	31,493	935
Crude turpentine.....	8,217	....	6,679	1,122
Rosin..... ..	192,925	11,677	125,651	5,116
Tar.....	17,547	985	14,798	673
Pitch	1,147	277	2,969	199
Timber, P. P.....feet	....	31,000	26,773	....
Lumber, P. P.....	5,093,756	2,856,965	4,094,468	3,466,400
Shingles	....	755,000	36,000	695,000
Staves.....	36,600	....	15,330	....
Peanuts.....bush.	22,712	....	17,881	....
Flour.....bbls.	253	....	141	10
Cotton.....bales	2,063	....	4,004	....
" sheeting	587	....	500	....
" yarn	501	....	316	....
" waste.....	41	....	45	....
" warp.....	68	....	....	....
Rice, rough .....bush.	39,510	19,000	90,108	....
" clean.....casks	89	105	226	20

COMMERCE OF CHARLESTON.

We have obtained the following statements of the exports and imports of the four leading articles of commerce at the port of Charleston, during the fiscal year ending June 30th, 1858 :—

	Exports.	Value.
Cotton.....bales	284,462	$15,311,468
Rice..... tierces	27,960	687,514
Rice .....bush.	64,621	
Wheat..... ..	144,961	191,651
Flour .....bbls.	51,242	304,321
Total.....		$16,494,954

	Imports.	Value.
Sugars.....lbs.	5,406,703	$295,888
Molasses.....galls.	993,957	148,650
Coffee .....lbs.	1,173,512	106,487
Salt .....bush.	320,262	37,687
Total.		$588,712

It will be seen, by the above number of cotton bales, that Charleston has exported nearly nine per cent of the crop estimated last year.

IMPORTS OF COTTON INTO GREAT BRITIAN.

The quantity of raw cotton imported into England from various places, is a highly interesting subject to both the producers and consumers. We find the following statement in the London correspondence of the *National Intelligencer* :—

Imported from—	1848.	1857.
The United States.....lbs	574,738,520	654,758,048
Brazil.....	18,675,123	29,910,832
Egypt and Mediterranean countries	9,674,076	24,882,144
British East Indies	65,709,729	250,338,144
British West Indies and Guiana	1,260,444	1,443,568
Other countries	3,135,224	7,986,160
Total.....	673,193,116	969,318,896

The most striking feature of this statement, is the very great increase in the produce of cotton in the British possessions in the East Indies.

COMMERCIAL REGULATIONS.

REGULATIONS ENACTED BY THE EUROPEAN COMMISSION OF THE DANUBE,

FOR THE PRESERVATION AND MAINTENANCE OF ORDER AND REGULARITY IN THE PORT OF SULINA.

Whereas, it is necessary that order be maintained in the port of Sulina, in order to avoid all confusion and collision between vessels entering and going out of the Danube, and in order to facilitate the execution of any works that may be undertaken at the mouth of that river, the European Commission of the Danube, in virtue of the 16th article of the Treaty of Paris of the 30th March, and in virtue of the temporary power writ which the commission has been invested by the Sublime Porte, do hereby exact the following temporary regulations:—

ART. 1. All merchant vessels entering the port of Sulina, whether from the sea or from inland, shall strictly obey the orders of the captain of the port or those of his subordinates in everything connected with harbor service and discipline.

ART. 2. A guard boat shall be stationed at each end of the port; No. 1 seaward—No. 2 above in the river. These boats shall indicate to captains entering the port the berths where they are to anchor.

ART. 3. The harbor of Sulina shall be divided into five sections, numbered from 1 to 5, commencing from the sea; these shall be marked by posts of different colors, placed on each side of the river. The first shall be reserved for the men-of-war on the station, for barges in the service of the European Commission, and for merchant steamers. The second shall be allotted to merchantmen who, after having lightened, are ready to put to sea, as well as to the lighters into which they have discharged part of their cargo. The third, to vessels having to lighten. The fourth, to vessels waiting at Sulina for a fair wind to ascend the river. The fifth to the empty lighters. It is strictly forbidden to the latter to approach the loaded lighters. The space situated between the first section and the lighthouse must always remain free.

ART. 4. Any captain infringing the regulations of the preceding article by dropping anchor on forbidden ground, and who, on the summons of guard boats No. 1 or 2, shall not directly repair to the anchorage, that shall have been allotted to him, will be liable to a fine of 15 to 25 ducats, see 19th article of these regulations.

ART. 5. Every captain of a sailing vessel after having anchored his ship must proceed in person, or send his mate, to the Harbormaster's Office to produce his bill of health and other papers. If the vessel stops at Sulina less than 24 hours, the papers will be immediately returned to the captain after examination; otherwise they will be left at the Harbormaster's Office till her departure.

ART. 6. Every captain must pay the port dues in force at the Harbormaster's Office, taking a receipt for the same. Any payment, for which the Harbormaster's receipt cannot be shown, shall be considered null and void.

ART. 7. After having cast anchor the ships must be moored either to the posts fixed for this purpose on each side of the river, or to vessels already moored.

ART. 8. As soon as the orders of the preceding article have been complied with, vessels must take in their jibbooms, and while thus moored the yards must be braced fore and aft.

ART. 9. The captain of the port will, as far as possible, definitely fix the moorings and landing places for the weekly mail steamers in the first of the stations mentioned in article No. 3.

ART. 10. All vessels entering and leaving the port of Sulina must hoist their colors; the authorities of the port will not permit any vessel to pass without doing so.

ART. 11. The captain of the port will regulate as follows the movement of vessels on bogas days, (days on which vessels can pass the bar.) 1st. No vessel can weigh anchor or leave its moorings before the signal of departure has been given, which signal will be the hoisting of a ball on a vertical pole on the light-house. 2d. Vessels must pass out one after the other in turn; guard boat No. 1 will regulate this movement, and stop any vessel which cannot produce the receipt of the Harbormaster for the port dues. 3d. The chief pilot will be on the bar to direct the passage of ships over it, and to prevent all confusion and collisions between them.

ART. 12. Small coasting vessels, as well as lighters, shall be submitted to the strict surveillance of the captain of the port. They shall be forbidden to move about the harbor during the night; that is to say, between evening and morning gun fire. Boats belonging either to the port or to merchant vessels must not move about at night without having on board a lighted lantern.

ART. 13. It is not allowed to burn tar or pitch on board vessels inside the port, or in short to do anything which may incur the risk of fire.

ART. 14. All fires must be put out after the evening gun has been fired by the Turkish man-of-war on the station. Captains will take care that no other lights but glass lamps or lanterns are used on board.

ART. 15. In case of a fire breaking out on board of any ship the captains of all vessels at anchor must send part of their crew to give her every possible assistance. Sailors not told off for this purpose must remain on board their respective vessels.

ART. 16. Vessels can only be hove down in a part of the port alloted for this purpose. The captain of the port will moreover take care that navigation shall in nowise be hindered thereby.

ART. 17. Sailors must return on board their vessels immediately after evening gun fire.

ART. 18. In conformity with article 14 of the provisional instructions, dated 28th Febuary, 1857, and transmitted by the European Commission to the captain of the port, he shall decide summarily all differences between captains and their crews, taking the assistance of two captains of the same nation, as the two disputing parties, or in their absence of two other captains. He shall not however exercise this part of his functions, unless one of the parties interested shall have solicited his intervention, and no other competent authority shall be present on the spot.

ART. 19. Any infraction of articles 7, 8, 10, 12, and 14, shall be punished by a fine of from one to five ducats, which, in case of resistance, shall be doubled. Infractions of articles 2, 3, 11, and 13, shall be punished by a fine of from 15 to to 25 ducats, which, in case of resistance, shall also be doubled. Should the captain of any vessel refuse to pay the fine incurred, the Harbormaster will detain the ship, and report forwith to the competent authority, in order that the payment thereof may be enforced.

ART. 20. The captain of the port shall fix the amount of the fines which may be incurred by persons infringing the present regulations. In case of appeal against the decisions of the captain of the port, the total amount of the fine shall be deposited, until such time as the case shall be decided, in the hands of the authorities to whom the offender is amenable.

ART. 21. Masters and captains of vessels shall be personally responsible for offences committed by their crews.

ART. 22. In all cases in which the interference of the captain of the port, and that of the agents placed under his command, may be insufficient, he may have recourse to the men-of-war on the station, who will lend him their aid, within the limits of their instructions.

ART. 23. The present regulations shall be put in force as soon as they shall have been published at the Harbormaster's Office at Sulina, and at the ports of Galatz and Ibraila. The text shall be communicated, with English, Italian, German, and Greek translations, to the consular authorities at Constantinople. Galatz, Ibraila, and Toultch, as well as to the local authorities of these three

latter towns, to the authorities at Ismail and Reni, and to the commandants of the men-of-war appointed by the 19th article of the Treaty of Paris, to ensure the execution of the regulations for the navigation of the Danube.

For the European Commission of the Danube,

OMER FEVZI.

JAPAN TRADE—LAW OF THE UNITED STATES.

Whereas, a convention between the United States and the Empire of Japan, for the purpose of further regulating the intercourse of American citizens within the Empire of Japan, was concluded and signed at Simoda, on the seventeenth day of June, eighteen hundred and fifty-seven, the English version of which convention—it being in the English, Japanese, and Dutch languages—is word for word as follows:—

For the purpose of further regulating the intercourse of American citizens within the Empire of Japan, and, after due deliberation, his Excellency Townsend Harris, Consul-General of the United States of America for the Empire of Japan, and their Excellencies Inowouye, Prince of Sinano, and Nakamoera, Prince of Dewa, governors of Simoda, all having full powers from their respective governments, have agreed on the following articles, to wit:—

ARTICLE 1. The port of Nangasaki, in the Principality of Hizen, shall be open to American vessels, where they may repair damages, procure water, fuel, provisions, and other necessary articles, even coals, where they are obtainable.

ART. 2. It being known that American ships coming to the ports of Simoda and Hakodade cannot have their wants supplied by the Japanese, it is agreed that American citizens may permanently reside at Simoda and Hakodade, and the government of the United States may appoint a vice-consul to reside at Hakodade. This article to go into effect on the fourth day of July, eighteen hundred and fifty-eight.

ART. 3. In settlement of accounts the value of the money brought by Americans shall be ascertained by weighing it with Japanese coin—(gold and silver itsebues)—that is, gold with gold and silver with silver, or weights representing Japanese coin may be used after such weights have been carefully examined and found to be correct. The value of the money of the Americans having been thus ascertained, the sum of six per cent shall be allowed to the Japanese for the expense of recoinage.

ART. 4. Americans committing offences in Japan shall be tried by the American Consul-General or Consul, and shall be punished according to American laws. Japanese committing offences against Americans shall be tried by the Japanese authorities, and punished according to Japanese laws.

ART. 5. American ships which may resort to the ports of Simoda, Hakodade, or Nangasaki, for the purpose of obtaining necessary supplies, or to repair damages, shall pay for them in gold and silver coin, and if they have no money, goods shall be taken in exchange.

ART. 6. The government of Japan admits the right of his Excellency the Consul-General of the United States to go beyond the limits of the Seven Ri, but has asked him to delay the use of that right, except in cases of emergency, shipwreck, &c., to which he has assented.

ART. 7. Purchases for his Excellency the Consul-General or his family may be made by him only, or by some member of his family, and payment made to the seller for the same without the intervention of any Japanese official, and for this purpose Japanese silver and copper coin shall be supplied to his Excellency the Consul-General.

ART. 8. As his Excellency the Consul-General of the United States of America has no knowledge of the Japanese language, nor their Excellencies the Governors of Simoda a knowledge of the English language, it is agreed that the true meaning shall be found in the Dutch version of the articles.

ART. 9. All the foregoing articles shall go into effect from the date hereof, except article two, which shall go into effect on the date indicated in it.

Done in quintuplicate, (each copy being in English, Japanese, and Dutch,) at the Goyosso of Simoda, on the seventeenth day of June, in the year of the Chris-

tian era, eighteen hundred and fifty-seven, and of the independence of the United States of America the eighty-first, corresponding to the fourth Japanese year of Ansei, Mi, the fifth month, the twenty-sixth day, the English version being signed by his Excellency the Consul-General of the United States of America, and the Japanese version by their Excellencies the Governors of Simoda.

TOWNSEND HARRIS, [SEAL.]

And whereas, the said convention has been duly ratified:—Now, therefore, be it known that I, James Buchanan, President of the United States of America, have caused the said convention to be made public, to the end that the same, and every clause and article thereof, may be observed and fulfilled with due faith by the United States and the citizens thereof.

In witness whereof I have hereunto set my hand, and caused the seal of the United States to be affixed.

Done at the city of Washington this thirtieth day of June, in the [SEAL.] year of our Lord one thousand eight hundred and fifty-eight, and of the independence of the United States of America the eighty-second.

JAMES BUCHANAN.

By the President:—
LEWIS CASS, Secretary of State.

ALTERATIONS IN FOREIGN CUSTOMS TARIFFS.

A return has just been printed, by order of the House of Commons, specifying the alterations which have recently taken place in the customs tariffs of the various foreign States, and their dependencies, and of which an account had been received since the 10th of March, 1857. The first is that relating to Russia. By the new tariff, which came into operation in June, 1857, numerous modifications have been made in the rates of duty charged; and considerable improvements also appear to have been effected in the mode of assessing the goods—the process, as a rule, being much simplified. In very few instances, where those alterations in the rates have taken place, are the duties levied in any other way than by a specific sum chargeable on the weight, though in many cases this practice must operate very severely on the producer as well as the consumer. Still, this is an objection which applies as much to the English tariff as to the one now in operation in Russia; and we certainly could point out as many anomalies in the mode of charging duties under the English system as are to be found in that of any other country. Nearly the whole of the articles are charged, under the Russian tariff, by the pood, of 36 pounds English, and by the Russian pound, which is equal to .9 pound English.

The total value of British goods, or manufactures, exported to Russia in the year 1857 amounted to £2,832,172. The total quantity of cotton twist and yarn exported from the United Kingdom to Russia, during the last year, was 13,062,005 pounds, the declared value being £697,304; the rates of duty being for white cotton twist 11s. 1d. per pood, and for dyed 15s. 10d. per pood. Taking the present modified tariff, we find cottons of all sorts, closely woven, such as calicoes, jaconets, cambrics, nankins, &c., subject to the rate, if imported by sea, of 1s. 2-20d. per pound, (Russian,) and if imported by land, of 1s. 1-30d. per pound. Printed and embroidered cottons, such as corduroy, velvets, and velveteens, pay 2s. 2-60d., if imported by sea, and 2s. 0-70d. per pound if by land. All light cottons, such as muslins, if white, or dyed of one or varied colors, 3s. 2d.; and if printed 4s. 4-20d. per pound. Those are very high rates, the last mentioned being fully equal, in point of weight, to that charged upon figured silk broad stuffs imported into this country, but the rate per cent upon the value would be infinitely greater. The same principle applies to linen manufactures. The rates vary from 3-80d. to 3s. 11-50d. per pound; and for cloth mixed with cotton, whether bleached or unbleached, and dyed of one or several colors, 25 per cent on the value. But of British linen manufactures Russia has imported none since 1851. Woolen goods are also subject to high rates, varying from 7-60d. per pound on bunting, sashes, &c., of all colors, up to 12s. 8d. per pound on shawls, handkerchiefs, and scarfs. For cloths or half-cloths,

cassimere, tricots, &c., 4s. 4-20d.; flannel, plush, baize, &c., 2s. 2-60d.; carpets and rugs of all sorts, 1s. 5-10d.; and all light manufactures, if plain, 3s. 9 60d., and if printed, 5s. 0-80d. per pound. We do not, however, find woolen and worsted yarns enumerated in the present return, or modified tariff, though the value of those goods exported from England to Russia amounted to £353,179 during the past year.

Nor do we find machinery enumerated among the modified rates now charged, though the value of the exports under that head to Russia amounted to £598,605 during the year 1857. But on iron, wrought and unwrought, the rates are from 5-70d. to 3s. 2d. per pood, the latter rate being chargeable on anvils. The total value of iron and unwrought steel exported to Russia was £230,299 in 1856, as compared with £67,130 in the year 1852. Unmanufactured steel is subject to 2s. 4-50d. per pood. Utensils of iron for professional purposes, such as saws, files, &c., are charged 2s. 6-40d. per pood; packing, harness, and sailmakers' needles, 9-50d. per pound; and whitesmiths' and locksmiths' work of all kinds 12s. 8d. per pood; while cutlery, mounted in wood, horn, or bone, pays 1s. 2-20d. per pound. Papier mache, and all works thereof, is now liable to a duty of £1 11s. 8d. per pood. And china, as well as common pottery, pay rates, varying from 7-60d., up to £3 16s., according to the quality, or whether imported by sea or land.

In the Norwegian tariff some modifications have taken place; but not to that extent which will affect our trade. The total exports to Norway during the past year was £441,757. Amongst the rates which have been altered are those chargeable on cotton manufactures; yarn, undyed and not twisted; cloths and tapes of cotton; wool, hair, or flax; iron, wrought or unwrought, and iron manufactures; pig iron and plates, under one-third of an inch in thickness, being made free.

The modified rates in all instances in the French tariff, as well as in that of the Papal States, are all specific, and levied on the weight. In Spain they vary; some being by number, some by weight, and others are *ad valorem*. And, last of all, we must not omit stating that his Majesty of the Two Sicilies has, in the generosity of his soul, deemed it right to modify his tariff; so that Bomba now admits maccaroni into his States at 1s. 9d. per 196 pounds English.

PORTO RICO TARIFF.

DEPARTMENT OF STATE, WASHINGTON, July 12, 1858.

Information has been received at this department from GEORGE LATIMER, Esq., the United States Consul at St. John's, Porto Rico, that, by the new tariff of the island, the duties on several articles of produce of the United States are increased, viz.:—

On staves, $2 per 1,000; on shingles, 50 cents per 1,000; on butter, 50 cents per 100 lbs.; on cheese, 50 cents per 100 lbs.; on hams, 75 cents per 100 lbs.

And by the instructions prescribed for the government of the custom-houses, it is provided that all vessels are to be measured and pay tonnage dues on what they appear to be in Spanish tons, instead of paying, as heretofore, on the number of tons expressed in the registers of such vessels. By the same instructions it is required that all manifests, even though the vessel comes in ballast, must be certified by the Spanish Consul, under penalty of being fined one hundred dollars for want of such certificate.

TRAVELERS TO EUROPE.

SWISS CONSULATE GENERAL, WASHINGTON, D. C., May 10, 1858.

The Swiss consulate in London, in a recent dispatch to the Federal Council of Switzerland, relates the following occurrence:—

Two Swiss citizens coming from New York provided with proper passports, were, at their arrival in France, not allowed to proceed further, and were obliged to go to London, simply because they had omitted to procure the French *vise* at New York.

This is, therefore, to caution those of my countrymen who desire to return to Switzerland by way of France, not to neglect observing the above formality.

NAUTICAL INTELLIGENCE.

FIXED LIGHT IN DUNGARVAN BAY—IRELAND, SOUTH AND EAST COASTS.

Official information has been received at this office, that the Port of Dublin Corporation has given notice, that on and after the 1st of July, 1858, a harbor light will be exhibited all night from the lighthouse recently erected on Ballinacourty Point, on the northern side of Dungarvan Bay, south coast of Ireland. The light will be fixed, and visible between the bearings, from a vessel, of west and S. E. ½ S. It will show green bearing from west to N. W. by W., and red in the direction of Carrickapane Rock, but in all other directions it will be white. The light will be placed at an elevation of 52 feet above the level of the sea at high water, and its white appearance should be seen from seaward at a distance of about 10 miles in clear weather. The illuminating apparatus is dioptric, or by lenses of the third order. The light-tower is circular, of light grey limestone, 44 feet in height, and stands in latitude 52° 4′ 27″ N.; longitude 7° 33′ 5″ west of Greenwich, with Helvick Head S. ½ W. 1¼ mile; Carrickapane Rock S. S. E. 9 cables' lengths; and White-house spit W. by N. 3½ cables' lengths.

DIRECTIONS.—The intermittent light on Mine Head, S. W. by W. 4 miles from Helvick Head, marks the approach from the westward to Dungarvan Bay, and can be seen farther eastward than the range of Dungarvan harbor light. A vessel in the entrance of Dungarvan Bay must keep clear of the red color of the light to avoid Carrickapane Rock; and on the northern side of the bay keep to the southward of the green light to avoid Carricknagaddy, and the rocks which extend half a mile eastward of Ballinacourty Point.

BUOY ON BUTTER PLADDY SHOAL.—Also, that a black nun buoy has been moored off the western extremity of the Butter Pladdy Shoal, about 2 miles southwest of the South Rock Lighthouse, east coast of Ireland. This buoy, which is placed as a guide to vessels taking the channel between the Butter Pladdy and the main, lies in 5 fathoms at low water, with South Rock Lighthouse N. E. ½ E.; North Rock beacon N. E. ½ N.; Kerney Point north; and St. Patrick rocks perch S. W. by W. All bearings magnetic. Variation 25½° west in 1858. By order of the Lighthouse Board.

THORNTON A. JENKINS, Secretary.

WASHINGTON, July 2, 1858.

FIXED LIGHT WITH FLASHES ON CAPE SALOU.

MEDITERRANEAN, COAST OF SPAIN.

Official information has been received at this office, that the Minister of Marine at Madrid has given notice, that on and after the 1st of April, 1858, a light would be exhibited from the lighthouse recently erected on Cape Salou, in the Province of Tarragona, Catalonia. The light is a fixed white light, varied by flashes every 4 minutes, placed at an elevation of 141 English feet above the level of the sea, and should be visible in clear weather from the deck of a vessel 15 miles distant. The illuminating apparatus is dioptric, or by lenses of the third order. The lighthouse consists of a rectangular building, from the center of which rises a circular tower in two portions, the lower being 16 feet, and the upper 11 feet in diameter; this is surmounted by a lantern, and the whole is 38 feet in height. The lower part of the structure is colored yellow; the tower is of the natural bluish color of the stone of which it is built, and the lantern is white. It stands upon a rock close to the seashore, in latitude 41° 3′ 52″ N., longitude 1° 9′ 36″ east of Greenwich. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, May 22, 1858.

FIRE ISLAND LIGHTHOUSE, LONG ISLAND, NEW YORK.

On the evening of Monday, the 1st day of November next, a first order revolving light will be exhibited for the first time, and on every night thereafter from sunset to sunrise, from the lighthouse tower now in course of erection at Fire Island Beach, east side of Fire Island Inlet, south side of Long Island, New York. The illuminating apparatus is of the first order revolving catadioptric of the system of Fresnel, and will produce a brilliant flash once in every minute, which will not be materially different in appearance from the existing light in the old tower at that place, except in the greater brightness of the flash and increased range of the new light. The lighthouse tower, which is placed about 200 feet N. E. from the old lighthouse tower, is built of brick, will be 150 feet in height, of a cream or yellow color, and the light will be about 166 feet above the mean level of the sea. The old lighthouse tower and keepers' dwelling will be removed immediately after the exhibition of the light from the new tower. The new light should be seen in ordinary states of the atmosphere, from the deck of a vessel 15 feet above the water, from 21 to 23 nautical miles. Approximate position of the new lighthouse tower, latitude, 40° 37′ 53″ north, longitude, 73° 12′ 51″ west. Distances from Fire Island lighthouse—to Montauk Point lighthouse, 67¼ nautical miles; Great West Bay lighthouse, 35 nautical miles; Sandy Hook light-vessel, 31 nautical miles; Navesink lights, 37½ nautical miles; Barnegat lighthouse, 66 nautical miles. By order of the Lighthouse Board,

J. ST. C. MORTON, U. S. Corps Engineers.

NEW YORK, July 8, 1858.

NEW LIGHTHOUSE AND FOG-BELL ON BISHOP AND CLERKS' SHOAL.

NANTUCKET SOUND, MASSACHUSETTS.

A new lighthouse has been erected on Bishop and Clerks' Shoal, Nantucket Sound, Massachusetts. The tower is built of cut granite, on a cut-stone cylindrical pier, placed on the north point of the shoal. The pier is 12 feet high, and the tower 45 feet 8 inches high. The focal plane is 59 feet above the level of the sea. The color is grey, the natural color of the stone. The illuminating apparatus is a 4th order revolving catadioptric lens, of the system of Fresnel, showing a bright flash of the natural color every thirty seconds, which should be visible, in ordinary states of the atmosphere, a distance of 14 nautical miles. The position of the lighthouse, as given by the coast survey, is latitude 41° 34′ 17″ north, longitude 70° 15′ 20″ west of Greenwich. A fog-bell, to be rung by machinery, is attached to the lighthouse, and will be sounded in thick weather. The interval between the sounds is 15 seconds. The lighthouse bears from Point Gammon S. by E., (magnetic.) distance 2½ nautical miles. The light will be lighted for the first time at sunset on the evening of Friday the 1st of October next, and will be kept burning during that night and every night thereafter from sunset to sunrise. The Bishop and Clerks' light-vessel will be removed from her station on or about the 1st day of October, and will not show a light after the 30th of September next. By order of the Lighthouse Board,

W. B. FRANKLIN, Engineer, Secretary.

WASHINGTON, D. C., July 26, 1858.

BOLIVAR POINT LIGHTHOUSE, GALVESTON, TEXAS.

The Bolivar Point Lighthouse having been renovated and elevated, the light will be re-exhibited on the night of the 15th instant, and the temporary light discontinued. The apparatus is of the 3d order catadioptric of the system of Fresnel, fixed light of the natural color, and will be exhibited from an elevation of 100 feet above the mean level of the sea. This light should be seen in ordinary states of the atmosphere, from the deck of an ordinary coasting vessel, at the distance of 16 nautical miles. The tower is painted red. By order of the Lighthouse Board,

W. H. STEVENS, U. S. Corps Eng'rs, L. H. Inspector, 9th L. H. Dist.

GALVESTON, TEXAS, July 1, 1858.

SWASH LIGHTHOUSE, MATAGORDA BAY, TEXAS.

A light will be exhibited for the first time on the 15th of August next, and every night thereafter, from sunset to sunrise, from the screw-pile lighthouse recently erected at the Swash, opposite Alligator Head, in Matagorda Bay, Texas. The structure is upon seven iron screw-piles, hexagonal, and painted white. The iron work is painted black. The illuminating apparatus is catadioptric, fixed, of the fifth order of Fresnel, and is placed at an elevation of 38 feet above the mean level of the bay. This light marks the upper entrance to the Swash Channel. The buoy in the center of the channel ranges with this light and the small beacon light at Saluria. From the Swash Lighthouse, the buoy bears, per compass, N. N. E.; Saluria Light bears, per compass, S. S. W.; Decrows Point bears, per compass, S. S. E.; Matagorda Lighthouse. (revolving) south; Alligator Head bears, per compass, W. N. W.; Powder Horn Wharf bears, per compass, W. by N. ½ N.; Half-moon Reef Lighthouse bears, per compass, N. E. by N. By order of the Lighthouse Board,

W. H. STEVENS, Lighthouse Inspector.

GALVESTON, TEXAS, July 8, 1858.

REVOLVING LIGHT ON CANTICK HEAD—ORKNEYS, SOUTH WALLS.

Official information has been received at this office that the Commissioners of Northern Lighthouses have given notice that on and after the 15th of July, 1858, a light will be exhibited from the lighthouse recently erected on Cantick Head, the southeastern extremity of South Walls, Island of Hoy, Orkneys. The light will be a white revolving light, showing a flash once every minute. It will be placed at an elevation of about 115 feet above the sea at high water, and should be seen in clear weather from the deck of a vessel at a distance of about 16 miles. The illuminating apparatus will be dioptric, or by lenses of the second order. The light-tower, which is 60 feet in height, will, together with the keepers' houses, be painted white. It stands in latitude 58° 47′ 15″ N., longitude 3° 7′ 45″ west of Greenwich. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, July 2, 1858.

FIVE-FATHOM BANK LIGHT-VESSEL, OFF CAPE MAY, N. J.

A new light-vessel has been placed to mark the Five Fathom Bank, lying to the eastward of Cape May Lighthouse, as a substitute for the old vessel, which has been withdrawn for repairs. The rig and color of the vessel, and the characteristic distinction of the lights, are the same as the old vessel, but the present position of the vessel is to the E. N. E. of the position formerly occupied, which will enable over-sea voyagers and coasters to determine with less difficulty, it is believed, than formerly, the position of the shoal part of the bank in approaching it from all quarters. The position of the light-vessel may be determined by the following compass bearings from it, viz., to shoal part of the bank, N. W. ½ N. distant 2¼ miles; Cape Henlopen main light, W. by S. ½ S; Cape May Light, W. by N. ½ N. Moored in 12 fathoms water. By order of the Lighthouse Board,

E. M. YARD, Lighthouse Inspector.

PHILADELPHIA, July 14, 1858.

LIFE-PRESERVING JACKET.

This is an article which has just been manufactured in Philadelphia. It is said to fit a man like a sailor's monkey jacket, and, therefore, not liable to be washed from the body. The jacket is lined with cork shavings, enclosed in water-tight cloth, quilted in cylinders around the jacket, three or four inches apart. The jacket, therefore, is a series of water-tight compartments, and injury to any one will not affect the buoyant character of the others. The arms and hands are left free in their motion to seize a rope, grasp a plank, or use in any other way which is necessary to save life.

MARINE LOSSES FOR JULY.

The following is a table of marine losses for July, showing an aggregate of twenty two vessels, of which five were ships, five were barks, two were brigs, eight were schooners, and one a sloop. The total value of property lost was five hundred and forty thousand seven hundred dollars. As compared with the month of July, 1857, the above shows a decrease in the value of property lost of one hundred and seventy thousand dollars.

The vessels reported in this list are chiefly American, although some foreign are included—when bound to or from any United States port, or known to be insured in this country :—

	Vessels.	Value.
Total losses for January	15	$448,500
" for February	33	1,182,300
" for March	33	813,500
" for April (corrected)	33	951,040
" for May	33	714,000
" for June	22	814,401
" for July	22	540,700
Total for six months	191	$5,359,441
Same period in 1857	386	10,943,200

THE LIGHTHOUSE AT GENOA.

We condense from a letter of an American traveling in Italy, the subjoined items descriptive of the lighthouse at the port of Genoa. It is a square tower, built upon a high rock that extends into the sea, and is itself 247 feet in height. Its top is 385 feet above the sea. Nothing can be more complete, in its arrangements, than this lighthouse. There is a winding marble staircase within, reaching to the very top. The light is excellently arranged, being on the dioptric or Fresnel principle, now so generally used. The oil is pumped up by machinery, as in the regular lamps, the surplus falling back into a receiver. There are four circular wicks, one within another, affording a light, which, strengthened by crystal magnifiers, revolving upon a frame also turned by machinery, and making an eclipse every 1¼ minutes, can be seen at the distance of forty marine miles. The machinery resembles somewhat that of an old-fashioned clock with its weights hanging down in the tower, and cogwheels, balance wheel, &c., in a glass case. The whole is kept in excellent order, and is well worthy of a visit.

IMPORTANT INVENTION.

Lieut. Brooke, U. S. N., inventor of the celebrated instrument for deep sea soundings, has given to the nautical world another invention, for instantly detaching ships' boats from the davits, and thus preventing the loss of life so frequently resulting from the swamping of small boats, in attempts to disentangle them from the tackle after they have touched the water—an event most likely to happen when the sea is rough, or the vessel from which the boat is lowered is moving rapidly. This invention consists of a metal socket and ball fitted to each other. The former is secured to the boat and the latter is attached to the tackle; but as soon as the boat touches the water, the tackle being slackened, the ball drops from its place, and the boat is instantly released.

Nautical men who have seen this contrivance, have given it their unqualified approval, and it is likely to be soon brought into use, not only in this country, but elsewhere. The Russian Government is about to adopt it, we understand, upon the new war steamer built by William H. Webb, and it is already in use on the United States sloop-of-war Marion.

POSTAL DEPARTMENT.

OCEAN STEAM POSTAGE.

The following rates of postage on letters have been agreed upon between this government and the German States, Prussia, &c., by Bremen steamers :—

Bremen, 10 cents; Oldenburg, 13; Austrian Empire, (including Hungary, Galicia, Lombardy, and Venice.) Bavaria, Brunswick, Hamburg, Hanover, Mecklenburg Schwerin and Straelitz, Kingdom of Prussia, Kingdom of Saxony, and Saxe-Altenburg, 15; all other German States, cities, and towns, 22 cents; Switzerland and the Netherlands. 25 cents; Denmark and Schleswig, 25; Poland and Russia, 29; Constantinople, Greece, and Sweden, 33; Norway, 38—pre-payment optional.

Alexandria, Corfu. 38 cents; island of Malta, Wallachia, 30; Italy, (except upper part,) 33—pre-payment required.

Newspapers and circulars, 3 cents each, to be pre-paid.

MAILS TO THE PACIFIC.—For a single letter, not exceeding half an ounce in weight, to Chagres, 20 cents; to Panama, 20 cents; to California and Oregon, 10 cents—pre-payment required.

HAVANA MAILS.—A line is established between Charleston and Havana, and between New York and Havana, the postage being 10 cents on a single letter not exceeding half an ounce in weight, with an additional 10 cents for each additional half-ounce, or fractional excess of half an ounce, to be pre-paid. Postage on each newspaper to Havana, 2 cents, also to be pre-paid.

BRITISH POSTAL ARRANGEMENTS.

On letters to British North America, 10 cents, if not over 3,000 miles; if over that distance. 15 cents a single rate—pre-paid or not at the option of the sender.

Letters posted or charged in the United States will be rated at a half-ounce to the single letter, over a half and not exceeding an ounce as a double letter, and so on.

The single rates to be charged on each letter posted in the United States addressed to any place in Great Britain or Ireland is 24 cents, the double rate 48 cents—over an ounce and not exceeding 2 ounces, as a quadruple letter, and so on, each ounce constituting two rates.

Said postage on letters going to any place in Great Britain or Ireland may be pre-paid, if the whole amount is tendered at the office in the United States, where mailed, at the option of the sender.

Newspapers may be mailed at any office in the United States to any place in the United Kingdom, on the pre-payment of 2 cents, and may, on receipt from any place in Great Britain or Ireland, be delivered at any office in the United States on payment of 2 cents. NOTE.—Each government is to charge 2 cents on each newspaper. These are to be sent in bands or covers, open at the sides or ends, and to contain no manuscript whatever.

FRENCH POSTAL ARRANGEMENT.

A postal arrangement having been entered into between the United States and France, letters for France, or Algeria, may be sent in the open mail to France, direct, or through England, by either the United States, British, or French packets, the postage on the same being 15 cents for each ½ ounce, or fractional part thereof—pre-payment optional.

Persons mailing letters to foreign countries, with which the United States have not entered into postal arrangements, are reminded that it is necessary for them to pre-pay the proper postage, or the letters cannot be forwarded.

BRITISH MAILS.

The foreign mails leave Great Britain as follows:—

SOUTHAMPTON STATION—BY DAY MAIL.

Destination.	Mails dispatched from London.	When expected.
Portugal, Spain, and Gibraltar	7th, 17th, and 27th of every month.	July 6
Malta, Egypt, Mauritius, Ceylon, and India	4th, 12th, and 20th of every month.	July 4
Gibraltar, Penang, Singapore, and China	4th & 20th of every month	
British colonies in the West Indies, (except Honduras and Bahamas,) foreign colonies, &c., in the W. Indies, (except Havana,) California, Venezuela, N. Granada, Chile, and Peru. Greytown, (St. Juan de Nicaragua.).	2d & 17th of every month	July 1
Mexico and Havana	2d of every month only	July 1
Honduras, Bahamas, and Blewfields	17th of every month	July 16
Lisbon, Brazil, B. Ayres, and Falkland Isles.	9th of every month	Aug. 5
Australia	12th of every month	July 6

DEVONPORT STATION.

Cape of Good Hope, Ascension, St. Helena, &c.	Evening of the 5th of every month	July 2

PLYMOUTH STATION.

Madeira, Teneriffe, and West Coast of Africa	Evening of the 23d of every month	July 6

LIVERPOOL STATION.

British North America and United States ..	Evening of every Friday	July 8

PORTUGAL, SPAIN, AND GIBRALTAR.—The Tagus, for the mail of the morning of the 7th inst.

GIBRALTAR, MALTA, EGYPT, MAURITIUS, CEYLON, INDIA, AND CHINA.—The next mail from Calcutta direct, Penang, Singapore, and China, via Marseilles, is due in London on the 14th inst. The next mail for India, via Bombay, and Marseilles, is due in London on the 4th inst.

LONDON, BRAZIL, BUENOS AYRES, &c.—The Tyne, for the mails of the morning of the 9th inst.

MALTA, EGYPT, ADEN, INDIA, CEYLON, AND AUSTRALIA.—The mails, via Southampton, will be dispatched on the morning of the 18th inst. The mails, via Marseilles, will be dispatched on the evening of the 16th inst.

CAPE OF GOOD HOPE, &c.—The Dane, for the mails of the evening of the 5th inst.

UNITED STATES POST-OFFICE.

The Boston *Post*, in remarking upon the comparative expense of correspondence in different localities, under our postal system, gives the following comparative table. Of course, so long as letters and mail matter go all distances, it is not possible to get at the exact sum that it costs to distribute letters in any particular State or Territory, or other locality. Still, if we look at the money received, and the money expended in each State or district throughout the country, we can form a very tolerable idea of the comparative profit or loss. The larger the districts are, over which a computation is made, the more equitable and exact will be the estimate. It must be mentioned that the sum set down as the postal "expenses" in each State, does not necessarily embrace just the amount—no more or less—of the expenditures for such State, as in mail transportation a route may commence in one State and run through several others,

and the sum paid be set down to the State where the route begins. As the routes usually begin at the East, the largest portion of the expenses will be thrown on the States the farthest east. Still, this fact will make but little difference in estimating the postal business of the country in three large sections or divisions. The first division extends from Maine to Pennsylvania, the next from Delaware to Tennessee and Missouri, including California, and the last the States on the Gulf of Mexico, and the territories lying west of the Mississippi.

States.	Postal revenue.	Postal expenses.	Number of letters.	Letters per 1,000 persons.	Rev'nue per 1,000 persons.	Proportion of exp. to rev'nue.
Maine.....	$210,664	$170,745	3,111,403	4,987	$245	81
N. Hampshire.	137,950	99,948	2,037,459	6,269	308	72
Vermont.....	133,314	117,831	1,968,980	6,058	297	85
Massachusetts.	769,290	385,989	11,862,071	10,028	492	50
Rhode Island..	86,277	39,544	1,274,287	7,630	375	46
Connecticut....	263,380	175,181	3,389,997	9,700	476	66
New York....	1,981,100	1,037,316	29,259,943	8,432	411	52
New Jersey...	148,624	132,326	2,195,117	3,852	189	89
Pennsylvania..	815,588	523,796	12,045,863	4,737	232	64
Total	$4,546,187	$2,682,681	67,145,120	7,025	$345	59
Per cent.....	50	30	51	..	..	..
Delaware.....	$27,103	$19,477	400,320	4,127	$202	72
Maryland....	258,109	263,471	3,812,166	5,956	292	102
Dist. Columbia.	60,326	38,161	891,000	15,101	741	63
Virginia.....	300,855	413,993	4,443,494	2,936	144	137
Kentucky.....	167,343	224,422	2,471,601	2,274	111	134
Tennessee.....	139,998	198,103	2,067,716	1,893	93	141
Ohio.....	623,159	670,995	9,203,343	4,154	204	108
Michigan.....	215,454	232,337	3,182,164	6,252	307	108
Indiana	236,482	308,972	3,492,409	3,037	149	129
Illinois.....	460,259	553,337	6,797,370	5,468	268	120
Wisconsin.....	206,478	170,369	3,049,586	5,525	271	82
Iowa	161,978	153,313	2,392,283	7,141	350	95
Missouri.....	195,565	287,373	2,888,406	3,434	168	147
California.....	365,514	268,714	2,769,354	8,266	791	74
Total.....	$3,418,618	$3,798,537	47,861,212	5,007	$259	111
Per cent.....	37	42	36	..	..	..
Grand total.	7,964,805	6,481,218	115,006,332	5,428	274	81
Per cent.....	89	72	88	..	..	..
North Carolina	$99,168	$206,068	1,464,668	1,589	$73	208
South Carolina	126,642	270,487	1,870,449	2,649	130	214
Georgia.....	193,226	326,406	2,853,868	3,052	150	169
Florida.....	27,670	105,866	408,674	3,681	181	382
Alabama.....	150,675	324,868	2,225,414	2,665	131	216
Mississippi....	102,702	248,708	1,516,765	2,257	111	242
Louisiana.....	225,657	371,411	3 332,854	5,555	273	165
Texas.....	93,812	251,533	1,385,574	2,771	136	268
Arkansas.....	38,394	234,177	567,066	2,240	110	610
Territories.....	64,871	150,440	818,745	3,355	192	230
Total.....	$1,122,817	$2,489,914	16,444,077	2,845	$141	222
Per cent.....	11	28	12	..	..	..
Grand total..	9,087,622	8,971,132	131,450,409	4,875	244	99

The sums given as the postal revenue are not precisely the sums contributed by each State. To the sums so contributed have been added the proportion due by government for and on account of free matter, (government postage,) the sum

being estimated at $2,500,000 a year, and distributed among all the States, just in proportion to the postal revenue of each. The sums representing the expenses are only the expenses set down against each State in the annual report. There are some other moderate sums that go to increase the grand total of expenses, (like the cost of ocean transportation to California, set down in the naval estimates,) but these would not affect the distinct results that we arrive at in this programme.

JOURNAL OF INSURANCE.

NEW YORK FIRE INSURANCE STOCKS, DIVIDENDS, AND PRICES.

Names of Companies.	Capital.	Shares.	Par.	Dividends payable.	Semi-divid'nds. p. c.	Latest price.
Ætna	$200,000	4,000	$50	Jan. & July.	6	112 a 115
Arctic	250,000	5,000	50	Jan. & July.	5	104 a 105
Astor	150,000	6,000	25	Feb. & Aug.	7	123 a 125
Atlantic	150,000	3,000	50	Mar. & Sept.	10	150 a 155
American	200,000	4,000	50	Jan. & July.	6	112 a 114
Beekman	200,000	8,000	25	Feb. & Aug.	7	119 a 120
Bowery	300,000	12,000	25	June & Dec.	15	183 a 185
Brevoort	150,000	3,000	50	July & Jan.	7	105 a 106
Broadway	200,000	8,000	25	Feb. & Aug.	6	126 a 128
Brooklyn	102,000	6,000	17	Jan. & July.	10	145 a 150
Citizens'	150,000	7,500	20	June & Dec.	10	190 a 192
City	210,000	3,000	70	Feb. & Aug.	15	180 a 182
Clinton	250,000	2,500	100	Jan. & July.	10	117 a 120
Columbia	200,000	4,000	50	Jan. & July.	5	105 a 106
Commercial	200,000	4,000	50	June & Dec.	6	112 a 113
Commonwealth	250,000	2,500	100	Jan. & July.	5	92 a 95
Continental	500,000	5,000	100	Jan. & July.	5	112 a 115
Corn Exchange	200,000	4,000	50	Sept & Mar.	6	125 a 126
Eagle	300,000	7,500	40	May & Nov.	10	150 a 152
East River	150,000	10,000	15	June & Dec.	6	102 a 105
Empire City	200,000	12,000	100	Jan. & July.	7	118 a 120
Excelsior	200,000	4,000	50	Jan. & July.	10	112 a 115
Exchange	150,000	5,000	30	Feb. & Aug.	5	106 a 107
Firemen's	204,000	2,000	17	April & Oct.	18	150 a 155
Fulton	150,000	6,000	25	April & Oct.	7	126 a 128
Firemen's Fund	150,000	15,000	10	May & Nov.	..	105 a 108
Gallatin	150,000	3,000	50	June & Dec.	..	100 a 100
Gebhard	200,000	2,000	100	Jan. & July.	..	100 a 102
Greenwich	200,000	4,000	25	Feb. & Aug.	10	135 a 136
Grocers'	200,000	4,000	50	Mar. & Sept.	6	115 a 118
Goodhue	200,000	2,000	100	Jan. & July.	..	100 a 103
Hamilton	150,000	10,000	15	Jan. & July.	6	70 a 75
Harmony	150,000	3,000	50	Jan. & July.	3½	100 a 102
Hanover	200,000	4,000	50	Jan. & July.	6	110 a 112
Home	500,000	5,000	100	Jan. & July.	10	165 a 175
Hope	150,000	3,000	50	Jan. & July.	5	100 a 100
Howard	250,000	5,000	50	June & Dec.	15	170 a 175
Humboldt	200,000	2,000	100	Jan. & July.	..	100 a 102
Irving	200,000	8,000	25	Feb. & Aug.	7	116 a 120
Indemnity	150,000	1,500	100	Feb. & Aug.	5	95 a 96
Jefferson	200,000	6,667	30	Mar. & Sept.	10	172 a 175
Jersey City, New Jersey	150,000	3,000	50	Jan. & July.	5	108 a 110
Knickerbocker	280,000	7,000	40	May & Nov.	8	130 a 132
Lamar	200,000	2,000	100	Jan. & July.	5	110 a 115

Names of Companies.	Capital.	Shares.	Par.	Dividends payable.	Semi-divid'nds. p. c.	Latest price.
Lenox	$150,000	6,000	$25	Feb. & Aug.	6	105 a 108
Lorillard	200,000	8,000	25	Feb. & Aug.	8	132 a 135
Long Island	200,000	2,000	100	Jan. & July.	10	169 a 170
La Fayette	150,000	3,000	50	Jan. & July.	5	101 a 103
Manhattan	250,000	5,000	50	June & Dec.	15	150 a 152
Mechanic	150,000	3,000	50	Jan. & July.	7	109 a 111
Mechanics' and Traders'	200,000	8,000	25	Jan. & July.	10	145 a 150
Mercantile	200,000	4,000	50	Jan. & July.	8	125 a 130
Merchants'	200,000	4,000	50	Jan. & July.	10	150 a 152
Metropolitan	300,000	3,000	100	May & Nov.	6	105 a 106
Market	200,000	2,000	100	Jan. & July.	5	108 a 110
Montauk	150,000	3,000	50	Jan. & July.	..	80 a 85
Nassau	150,000	3,000	50	Jan. & July.	10	135 a 138
National	200,000	5,333⅓	37½	Jan. & July.	12	184 a 186
New Amsterdam	200,000	8,000	25	Jan. & July.	8	130 a 132
New York Equitable	210,000	6,000	35	Jan. & July.	15	165 a 170
New York Fire & Marine	200,000	2,000	100	Feb. & Aug.	15	160 a 165
Niagara	200,000	4,000	150	Feb. & Aug.	10	155 a 160
North American	250,000	5,000	50	June & Dec.	8	120 a 122
North River	350,000	14,000	25	April & Oct.	8	150 a 155
New World	200,000	4,000	50	Jan. & July.	5	105 a 106
Pacific	200,000	8,000	25	Jan. & July.	8	130 a 135
Park	200,000	2,000	100	Jan. & July.	6	125 a 130
People's	150,000	8,000	50	Jan. & July.	6	109 a 110
Peter Cooper	150,000	7,500	20	Jan. & July.	8	96 a 98
Phœnix	200,000	4,000	50	Mar. & Sept.	10	135 a 138
Republic	150,000	1,500	100	Jan. & July.	6½	100 a 102
Rutgers	200,000	8,000	25	Feb. & Aug.	7	100 a 102
Relief	150,000	3,000	50	Jan. & July.	8	115 a 116
Resolute	200,000	2,000	100	Jan. & July.	..	112 a 114
St. Mark's	150,000	6,000	25	Feb. & Aug.	8	128 a 130
St. Nicholas	150,000	6,000	25	Feb. & Aug.	..	75 a 76
Stuyvesant	200,000	8,000	25	Feb. & Aug.	7	112 a 115
Security	200,000	2,000	100	Feb. & Aug.	5	111 a 113
United States	250,000	10,000	25	Jan. & July.	7	135 a 137
Washington	200,000	4,000	50	Jan. & July.	15	155 a 150
Williamsburg City	150,000	3,000	50	Jan. & July.	10	130 a 132

BOSTON FIRE AND MARINE INSURANCE COMPANIES.

Names of Companies.	Capital.	Shares.	Par.	Dividends payable.	Dividends.	
American	$300,000	3,000	$100	Jan. & July.	10	6
Boston	300,000	3,000	100	Mar. & Sept.	4	5
Boylston	300,000	3,000	100	Apr. & Oct.	8	8
City	150,000	3,000	50	Apr. & Oct.	4	4
Eliot	200,000	4,000	50	Apr. & Oct.	5	5
Firemen's	300,000	6,000	25	Jan. & July.	12	16
Franklin	300,000	3,000	100	Jan. & July.	7	5
Hope	300,000	3,000	100	Apr. & Oct.	0	0
Manufacturers'	400,000	4,000	100	Apr. & Oct.	15	20
Mercantile	300,000	6,000	100	May & Nov.	0	5
Merchants'	500,000	5,000	100	Apr. & Oct.	8	8
National	500,000	10,000	50	Apr. & Oct.	6	8
Neptune	300,000	3,000	100	Apr. & Oct.	5	6
North American	200,000	2,000	100	Jan. & July.	5	5
Shoe & Leath'r Deal'rs	200,000	2,000	100	Apr. & Oct.	3	4
United States	200,000	4,000	50	June & Dec.	6	5
Warren	150,000	1,500	100	Apr. & Oct.	0	0
Washington	200,000	2,000	100	Apr. & Oct.	0	5

PHILADELPHIA FIRE AND MARINE INSURANCE COMPANIES.

Names of Companies.	Authorized capital.	No. of shares.	Par.	Subscribed capital.	Assets.
American Fire	$277,500	3,472	$75	$277,500	$502,421 68
American Mutual	250,000	10,500	12	125,000	100,000 00
Anthracite	400,000	8,000	50	100,000	112,680 40
Atlantic Mutual	500,000	10,000	10	110,000	156,462 58
Corn Exchange	500,000	10,000	50	140,000	200,000 00
Commonwealth	500,000	10,000	50	500,000	500,000 00
County Fire	400,000	4,000	100	201,000	146,418 89
Columbia Mutual	500,000	5,000	100	25 000	100,000 00
Continental	.....	20,000	50	200,000	221,000 00
Delaware Mutual Safety	100,000	10,000	5	100,000	702,785 37
Equitable Mutual	250,000	10,000	25	101,550	169,408 93
Exchange Mutual	300,000	6,000	50	150,350	196,505 16
Fame Mutual	100,000	2,500	50	100,000	61,262 40
Franklin	400,000	4,000	100	400,000	1,888,904 74
Farmers' and Mechanics'	250,000	25,000	50	250,000	530,894 94
Girard Fire and Marine	300,000	3,000	100	200,000	200,000 00
Great Western	500,000	10,000	50	222,300	277,574 05
Howard	600,000	6,000	100	600,000	754,095 84
Hope Mutual	500,000	1,500	10	75,000	153,000 00
Jefferson	500,000	10,000	50	100,000	130,903 38
Kensington	300,000	14,200	20	10,000	100,000 00
Manufacturers'	500,000	10,000	50	150,000	200,000 00
Merchants'	400,000	16,000	25	150,000	226,260 00
Mechanics'	100,000	1,000	100	100,000	150,000 00
Merchants' and Mechanics'	200,000	4,000	50	26,000	140,000 00
National Safety Ins. & Trust Co	250,000	5,000	50	250,000	1,165,145 74
Neptune	500,000	1,000	100	100,000	123,000 00
North America	500,000	50,000	10	500,000	1,007,825 26
Pennsylvania Fire	200,000	2,000	100	200,000	741,678 96
Philadelphia Fire and Life	300,000	12,000	25	100,000	170,000 00
Phœnix Mutual	120,000	5,200	20	120,000	225,000 00
Quaker City	500,000	5,000	100	200,000	277,665 85
Reliance Mutual	300,000	6,000	50	178,000	252,500 00
State of Pennsylvania	200,000	1,000	200	200,000	447,446 50
Spring Garden	200,000	4,000	50	120,000	149,341 14
Union Mutual	300,000	6,000	50	225,000	338,000 00
Western	200,000	4,000	50	50,000	150,000 00

INSURANCE IN BREMEN.

The amount of insurance risks in the city of Bremen for ten years was as follows:—

1848.....thaler	22,680,800	1853.....thaler	36,222,800
1849.....	24,898,000	1854.....	44,006,800
1850.....	26,712,000	1855.....	49,106,900
1851.....	30,674,000	1856.....	64,048,800
1852.....	30,632,200	1857.....	83,130,000

INSURANCE COMPANIES OF NEW YORK CITY.

The aggregate capital of 77 local insurance companies in New York city (being all except the mutuals) is $16,376,000. This capital is sound and well invested, and it would earn its interest, seven per cent, without being employed in the hazard of insurance against fire. The aggregate amount of premiums received by these 77 companies in 1857, was $5.322,407. The aggregate amount of losses and expenses paid in same time, was $3,843,291. The apparent net earning on the *business* of insurance was $1,479,116. Of this sum there should be deducted for re-insurance on *increased* business during that year, about

$100.000—actual earning, $1,379,116. The dividend of all these companies paid during the year was $1,219,201; averaging on the aggregate capital 12½ per cent. It is evident that about 5½ per cent of this dividend was from insurance earnings, $821,931. The balance of earnings went to reserved surplus, $557,185.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

RAILROAD PROFITS.

An article in the last number of the *Edinburgh Review*, upon the "Railways of Great Britain," presents many facts and comparative statements which are both new and interesting. The general results of railroad communication over modern society in cheapening conveyance, saving time, increasing production and capital, and diffusing knowledge and intelligence, are matters of universal notoriety. But the comparative success of railroads, as business investments, in different countries, is not to well understood. It is generally supposed that they have proved less remunerative than is actually the case. The fact is, that, upon the continent of Europe more particularly, they are amongst the most profitable forms of investment, as is shown by the following table:—

Years.	Countries.	Cost per mile.	Receipts.	Expenditure.	Net receipts.	Per cent.
1856	Great Britain.	£35,459	£28,185,000	£10,887,600	£12,278,000	3.97*
1855	Germany....	14,529	4,207,116	4,846,744	4,360,372	5.05
1855	Austria.....	21,887	1,901,045	1,023,918	877,127	6.29
1856	Prussia	14,101	4,537,602	2,341,005	2,196,597	6.22
1854	France.....	25,668	8,077,846	3,483,642	4,594,204	6.14
1856	United States	8,000	18,996,394	10,148,413	8,847,981	5.46

The enormous expense of the railroads in England will be observed; and it is this more than any other cause which has reduced the percentage of profit to so low a figure. In this table the average cost is given of the roads of both England and Scotland, but between these two countries there is a notable difference in this respect—the cost per mile in England having been £40,288, and in Scotland £27,750. In Ireland it was only £14,808. Benefit has been derived from experience, for the more recently constructed roads have averaged only £12,273 per mile in England, £5,408 in Scotland, and £6,716 in Ireland. The average dividend on the English roads is 3.5 per cent, on the Scotch 2.7 per cent, and on the Irish 4 per cent. The principal causes of the great cost of the English roads have been the exorbitant prices paid for land damages; and the enormous sums invested in operating upon Parliament roads have been made unprofitable too, by the tendency of Parliament to concede competing or otherwise unnecessary lines; the imposition of a passenger tax, amounting to about eight per cent of the net receipts from passengers; heavy parochial assessments, amounting to some fourteen per cent of the net receipts; the infringement on the proper income of railroads by the Post-office in carrying parcels, and the partial and oppressive manner in which the compensation law for damages in cases of accident is administered.

In Europe, as here, the passenger traffic forms a very large proportion of the

* Proportion per cent net receipts to total capital expended.

income of railroads; but this proportion appears to be decreasing; that is to say, the freight business has increased in greater ratio than the passenger business. In Great Britain, the passenger receipts in 1849 were 53 per cent of the total receipts, but in 1856 they amounted to only 44 per cent of the total receipts. Upon the continental railways the proportion varies considerably in different countries. Thus, upon the French railways the receipts from passengers appear to be 52 per cent, while in Prussia and Germany the passenger receipts are scarcely one-third of the total receipts; and on the Austrian railways the fares of passengers amount to only 27 per cent of the total income. In all European countries the passenger traffic is divided into three classes, of which the proportional number travelling by each class is nearly as follows:—

	First.	Second.	Third.	Total.
British Isles	13	32	55	100
France	9	33	68	100
Germany	1.5	21.5	77	100
Austria	2	24	74	100

On the German and Austrian railways the first and second classes are nearly identical with the first-class on English railways. On the French railways, the first, second, and third-class carriages are used very much by the same classes as on English railways. In the United States, with the exception of the emigrant class, there is only one class of passengers. The actual number of each class of passengers in the British Isles was in—

	First.	Second.	Third.
1849	7,292,812	23,521,650	32,890,322
1856	17,117,477	40,666,162	71,531,557

The receipts per mile for each class were:—

	First.	Second.	Third.
In 1849	£345	£454	£326
1856	352	404	413

and the actual receipts—

	First.	Second.	Third.
1849	£1,927,768	£2,530,969	£1,816,476
1856	2,992,161	3,488,981	3,512,228

The greatest proportionate increase, it will be observed, is in the third-class business. On the French roads, the increase of the lower class traffic is yet more decided. In 1853, the published returns show:—

	First.	Second.	Third.
Receipts per mile were.	£337	£327	£196
And the total receipts..	790,701	767,472	1,164,741

The French Minister of Works observed in his Statistical Report for 1856, that "the comfort of the carriages has very little to do with the numbers traveling in the different classes, but that the selection of the class is regulated by the speed of the trains."

OPENING OF NAVIGATION ON THE LAKES.

The Dunkirk *Journal* states, as a curious fact concerning the opening of navigation on the lakes, that "for a long series of years the same thaw or storm has cleared Dunkirk Harbor, Buffalo Creek, and the North River at Albany, of ice, often at the same hour, and seldom varying twenty-four hours. This spring, 1858, the work of breaking at the three points was simultaneous, varying at the farthest no more than the difference in time between the given points."

STEAM ON THE ERIE CANAL.

On Friday, the 6th of August, Governor KING, of New York, and a select party, made a passage from Rochester to Buffalo on board of the steam propeller Sternberg, the first attempt at steam navigation on the Erie Canal.

The Sternberg is modeled in regular canal-boat fashion, but is somewhat smaller, and far more graceful, than the ordinary boats. She is ninety-six feet long, seventeen feet four inches beam, and seven feet depth of hold. She carries 150 tons of freight in the present state of the canal, but when it is wider she can carry 200 tons. She is propelled by two engines of fifteen horse-power each, and has two screws, one at each side of the rudder. This mode of construction is very favorable to canal navigation, as the motion of the screws throws the current into the center of the canal, and hence all damage to the banks by the washing of the waves is avoided. This was particularly observable on the trip of Friday, for while the Whallon, with her single screw, and the lake propeller Governor King, threw a heavy wave to the side of the canal, the Sternberg did not make a rise on the banks of more than three inches, and her builders say that her construction is not perfect, but that they will improve considerably on the next boat The Sternberg is the first freight-carrying steamboat put on the canal. The Sternberg was built in Buffalo by Van Slyke & Notter, and is but very recently completed. Her engines, a model of machinery, were built by Mr. David Bell, of Buffalo. On Friday and Saturday she ran at an average of five miles an hour from Rochester to Buffalo, and sometimes made six and seven miles in the hour, though she was going against the current, and had eighty tons of freight, besides her passengers, on board. She moved with perfect smoothness, was easily stopped when in full motion, and steered admirably, scarcely making a perceptible swell in the water. As far as damage to the banks of the canal is concerned, it seemed to be the opinion of all on board that there was no danger to be apprehended from such boats as the Sternberg. The quantity of fuel consumed by this boat is inconsiderable. On the trip down from Buffalo to Rochester last week, a distance of ninety-two miles, with 130 tons of freight on board, she consumed only 2½ tons of coal.

It is estimated that a boat supplied with a ten horse steam-engine would require no more hands to manage her than is used with horses, and the only difference in cost would be between an engineer and driver—the former $30, and the latter $10, per month. A ten horse steam-engine can be run at an expense of fifty pounds of coal per hour, at $5 per ton. Therefore, she could be run forty hours with one ton of coal. A distance of 120 miles, at three miles per hour, would cost—

For one ton of coal	$5 00
Extra wages of engineer	2 56
One quart sperm oil	0 56
Total	$8 12

Same distance done by horse-power would be, for 120 miles towing, done at 20 cents per mile, which is below the present rates of towing, $24; time, at 2½ miles per hour, 48 hours. Allowing the expenses of the boat to be equal in other respects, the above estimate shows a saving in favor of steam of $15 88, and a gain of eight hours in the 120 miles.

RAILROADS OF THE UNITED STATES.

Since 1830, we have, says the *Railroad Journal*, built nearly twenty-seven thousand miles of railroad, which have cost, on an average, $35,000 per mile, or about $945,000,000.

The following statement will show the number of miles annually opened, to the first of January in each year, since 1848, with their cost each year, and the total cost :—

Years.	Number of miles.	Annual increase.	Cost for year.	Total cost.
1848	5,265	....	.....	$184,275,000
1849	5,195	932	$32,620,000	216,895,000
1850	7,350	1,253	43,855,000	260,750,000
1851	8,856	1,506	53,710,000	313,460,000
1852	10,878	2,022	70,770,000	385,230,000
1853	13,315	2,437	85,295,000	470,525,000
1854	15,511	2,196	76,860,000	547,385,000
1855	18,438	3,927	107,445,000	654,830,000
1856	21,449	2,009	70,315,000	750,715,000
1857	24,290	2,841	99,435,000	850,150,000
1858	26,210	1,920	67,200,000	917,350,000

The total receipts on the roads have been about twelve per cent on their cost, and the net proceeds about five per cent. The following statement will show the receipts, running expenses, and net earnings to the 1st of January in each year .—

Years.	Total receipts.	Working expenses.	Net earnings.
1848	$22,113,000	$12,899,250	$9,213,750
1849	26,026,400	15,181,650	10,844,750
1850	31,290,000	18,255,500	13,037,500
1851	37,615,200	21,942,200	15,637,000
1852	45,979,600	26,716,100	19,261,500
1853	56,463,000	32,936,750	23,526,250
1854	65,681,400	38,312,150	27,369,250
1855	77,579,600	44,838,100	32,741,500
1856	87,017,400	50,760,150	36,257,250
1857	98,949,600	57,720,600	41,229,000
1858	106,013,600	61,424,200	44,589,400

From these tables it will be seen that the amount annually expended in the construction of railroads since 1850 has largely exceeded the whole expenditures of government, and that the railroad receipts for the same years have surpassed the government receipts. Indeed, the working expenses of railroads very nearly equal the working expenses of government; and the entire expenditure is in the hands of a few men, who are accountable to no intelligent head for its use.

WABASH AND ERIE CANAL OF INDIANA.

The annual statement of the trustees of this canal has just been published. That paper says the result of the year's operations is very unfavorable. In addition to the railroad competition, which has been very disastrous, the canal suffered to the extent of $50,000 by the flood in the Wabash Valley. The aqueduct over Wea Creek, 140 feet long, was wholly carried away. It was at first supposed that the damage was so great that it would be necessary to abandon the canal entirely. The available means of the trust are barely equal to the expenses and repairs, and the trustees have been forced to postpone the payment of the interest on the six per cent loan to October, when they hope to be able to make the payment. Navigation will be resumed on the 15th instant. The sales

of lands between the 1st of December and 1st of July were 13,547 acres, for $26,922. The quantity of land unsold in Vincennes District is—

141,387 acres.....valued at	$289,418 22
Other lands, &c.....	73,760 26
Suspended debt	66,736 40
Total.....	$429,914 88

The receipts and expenditures for six months to January 30th, 1858, were as follows:—

On hand December 31, 1857		$84,346
Receipts.....	$58,640	
Expenses.....	84,934	
Excess expense.....		25,294
On hand June 30.....		$53,105

RAILROAD ACCIDENTS IN NEW YORK.

TABLE SHOWING THE SPEED, NUMBER OF PASSENGERS KILLED, PASSENGERS, MILEAGE, RATIO OF KILLED AND WOUNDED, ETC., ETC., ON THE VARIOUS NEW YORK RAILROADS FOR THE YEAR ENDING SEPTEMBER 30, 1855.

	Speed. Ordinary.	Speed. Express.	Total killed.	Passengers Killed.	Passengers Injured.	Total passengers.
New York and Erie.....	26	34	86	3	1	980,452
New York Central.....	28	35	24	1	11	2,636,062
Hudson River.....	33	39	26	2	6	1,540,856
New York and New Haven...	28	34	6		12	1,074,056
Buffalo and State Line.....	38	38	4	1	..	325,536
Canandaigua and Elmira.....	30	32	4	1	1	137,591
Long Island.....	30	35	3	.	2	374,881
Other roads*.....	25	31	20	1	3	3,072,551
Average and total.....	26	34¼	123	9	36	9,141,984

	Mileage.	Ratio to whole number. Killed.	Ratio to whole number. Injured.	Av. m. each pass.
New York and Erie..... ...	64,951,794	1 to 326,817	1 to 980,452	66.2
New York Central.....	169,052,341	1 to 2,636,062	1 to 239,642	64.
Hudson River	70,041,746	1 to 770,428	1 to 256,808	45.4
New York and New Haven...	41,248,586	.....	1 to 89,505	38.4
Buffalo and State Line.....	14,980,038	1 to 325,536	.....	45.
Canandaigua and Elmira.....	4,338,229	1 to 137,591	1 to 137,591	31.5
Long Island.....	9,479,016	.....	1 to 187,440	25.3
Other roads*.....	43,698,168	1 to 3,072,551	1 to 1,015,776	14 2
Average and total.....	417,784,913	1 to 1,015,776	1 to 253,944	45.6

If the returns of other years were sufficiently full to enable us to prepare a similar table, we believe it would exhibit the same result, *i. e.*, that accidents are not proportioned to speed. Indeed, in very many cases, accidents happen to slow trains which would have been prevented had the trains been running at high speed.

RAILROAD INVESTMENTS.

Governor HAILE, of New Hampshire, in his message of July, remarks thus upon the general results of railroad investments and their influence:—

More than six hundred miles of railroad have been constructed in New Hampshire within the last few years. These roads have more than doubled the

* Except Harlem and city roads.

facilities of business, brought our people into immediate communication with the best markets, have largely contributed to the public convenience, and have materially increased the value of the taxable property of the State. They were constructed at very great expense, but have failed, except in rare instances, to make any return whatever to the stockholders. A large number of the citizens of this and other States sacrified considerable parts of their estates, and some contributed nearly all their property, to aid the people of this State in these great public enterprises. There is manifest injustice in adding to the embarrassment of railroad corporations, owing more than the value of their property, and resulting in an entire loss to the stockholders, by subjecting them to a high rate of taxation. I submit to you the question, whether some modifications of the law of the State relating to the taxation of railroad corporations are not justly demanded.

JOURNAL OF MINING, MANUFACTURES, AND ART.

MANUFACTURES IN RUSSIA.

The manufacture of cloth in Russia is on an extensive scale. The raw material is principally obtained from the southern governments, and the emporium for the woolen trade is Kharkov, where, in the market seasons, immense quantities of wool are accumulated. By these markets the woolen trade of the whole country is regulated, and as at the last one, held about a month since, the prices were very low, the same is the case throughout the entire empire. The prices for the common sorts are from $10 25 to $14 25 per pood of 36 pounds. Better qualities are brought to Kharkov, especially from Bessarabia, which bring from $17 to $23. These, however, bear a small proportion to the whole, being scarcely one-eighth.

The factory hands are better recompensed in Russia than anywhere else. The best receive from $3 50 to $4 50 weekly, and women from $1 13 to $2 25. They are almost all serfs, and they enjoy the privilege of being exempt from the *obrok*, or tax to the proprietors, while they work in the factories. They already supply wares which rival the most excellent of foreign manufacture, as was seen last year in the great exhibition in Warsaw; but the prices are almost without exception 50 per cent higher than in Germany. The high tariff insures these high prices, and the extensive smuggling that has hitherto been carried on is accordingly not to be wondered at; for, if out of every four transports one should fall into the hands of the Custom-house officers, the profits to the owners would still be enormous.

Many other manufactures are conducted in Russia as extensively as that of cloth. Of these we will only cite the beet sugar factories. There are already a great number of these, and in the southern governments there are some that consume nearly thirty-six million pounds of beets yearly. Even though these do not as yet manufacture one-half of what the country requires, still, considering the progress of the people and the many improvements going on, it may safely be conjectured that at a period by no means distant they will be able to supply the greater part of the domestic need.

Most of the workmasters in the Russian factories are Germans and Englishmen, who, as may be imagined, are well recompensed, and will soon lay by fortunes, and often associate together and reap a brillant reward.

As regards the price of food in Moscow, only the commonest articles, such as bread and meat, are cheaper than in Germany. Everything else is very much dearer. But as the workmen live almost entirely on the former, a whole family can subsist on from $2 to $3 weekly, and they could, if both husband and wife worked, and would practice such economy unceasingly, lay by almost twice as much as they do.

LOCATION OF THE LAKE SUPERIOR MINES.

Companies.	Shares.	Sections.	Towns north.	Range west.
Adventure	$10,000	35 & 36	51	38
Aztec	20,000	31	51	37
Copper Falls	10,000	14	58	31
Central	20,000	23	58	31
Clark, Montreal, and Bell	8,000	..	58 & 59	28
Clinton	10,000	17 & 18	49	41
Evergreen Bluff	20,000	6	50	38
Flint Steel River	20,000	11 & 12	50	39
Fire Steel	10,000	22	51	37
Fond du Lac	10,000	8	47	31
Fulton	20,000	27, 33, & 35	..	..
Garden City	20,000	20 & 29	58	31
Gogebic	20,000	22, 23, & 21	49	42
Huron	20,000	2	54	34
Isle Royale	12,000	1	54	34
Mass	20,000	6	50	38
Minnesota	20,000	15	50	39
Merrywether	20,000	9 & 10	48	43
Metropolitan	20,000	26	49	42
North American	10,000	1 & 2	57	32
Northwest	10,000	15	58	30
Northwestern	9,000	24	58	31
Norwich	20,000	11, 12, 13, 14, & 25	49	41
Nebraska	20,000	12	50	39
National	10,000	16	50	39
Phœnix Copper	10,000	19	58	31
Pittsburg and Boston	6,000	32	58	32
Portage	20,000	36	54	34
Quincy	8,000	26	54	34
Ridge	10,000	35	51	38
Rockland	20,000	11	50	39
Superior	20,000	14	50	39
Toltec Consolidated	20,000	25 & 26	50	30
West Minnesota	20,000	17, 18, & 19	50	39
Windsor	20,000	12	49	41

MANUFACTURES OF THE STATE OF NEW YORK.

We have prepared from the report of the New York State Census a summary of the manufacturing interests of this State, showing some interesting features. The general relations between the number of persons, capital and value of products, appear to be fifteen hundred dollars as the annual production, and five hundred dollars as the necessary capital to each person employed. It is also shown that the annual production is three times in value the capital employed. If we allow the raw material to be one-half of the value of the manufactured article, which is about the general proportion, and allow two hundred dollars as the yearly value of the labor of each person, we shall find the net annual profit of manufactures to be over one hundred and sixty millions of dollars, or over one hundred and fifty per cent upon the capital employed. Statements showing the number of establishments, the persons employed, capital invested, and the annual value of manufactured articles in each branch of manufacture where the value of the products is over one million of dollars, in the State of New York —compiled from the State census of 1855 :—

	No. of establishments.	Persons employed.	Capital employed.	Cash value of manufactures.
Agricultural implements	59	1,065	$580,000	$1,737,000
Blacksmith shops	1,921	3,314	1,404,000	2,073,000
Brass and copper foundries	48	554	472,000	1,304,000
Furnaces	388	8,752	4,973,000	9,725,000
Gold and silver refining establishments	7	80	135,000	2,190,000
Iron manufactories	78	5,895	2,281,000	6,556,000
Iron railing manufactories	31	956	451,000	1,224,000
Machine shops	189	3,669	2,196,000	3,411,000
Safe manufactories	11	528	226,000	1,076,000
Silverware manufactories	1,336	449	802,000	4,822,000
Tin and sheet-iron manufactories	458	5,009	934,000	3,000,000
Carpet manufactories	18	1,891	659,000	2,079,000
Cotton factories	86	8,332	4,250,000	4,621,000
Paper mills	109	1,674	1,544,000	2,813,000
Rope manufactories	29	872	493,000	2,448,000
Woolen cloth and yarn factories	184	3,185	1,841,000	3,392,000
Bakeries	196	1,044	1,111,000	3,356,000
Breweries	128	1,133	2,239,000	4,448,000
Camphene distilleries	3	85	240,000	1,670,000
Chandleries and soap factories	111	685	1,127,000	4,096,000
Cotton printing establishments	7	510	204,000	2,352,000
Distilleries	88	805	1,187,000	8,681,000
Fish and whale oil manufactories	11	159	355,000	1,904,000
Gas manufactories	26	1,214	4,459,000	3,279,000
Lard oil manufactories	8	87	121,000	1,897,000
Malt manufactories	30	241	467,000	1,835,000
Oil mills	27	170	231,000	1,316,000
Salt manufactories	193	1,143	1,161,000	1,488,000
Sugar and syrup refineries	15	1,631	2,532,000	12,175,000
White lead manufactories	9	370	341,000	1,542,542
Stove manufactories	35	1,568	698,000	1,908,000
Steam-engine and boiler manufactories	28	3,518	2,132,000	3,841,000
Ship-building	86	3,286	1,516,000	4,664,000
Ship-rigging	2	86	78,000	1,700,000
House-building	88	1,496	559,000	1,217,000
Sash and blind manufactories	213	1,211	638,000	1,189,000
Car factories and repair shops	26	1,547	684,000	1,274,000
Coach and wagon manufactories	1,397	6,891	2,136,000	5,005,000
Grist mills	1,475	3,447	10,173,000	51,531,000
Carpenter shops	232	1,346	363,000	1,482,000
Cooper shops	661	2,857	470,000	1,910,000
Planing mills	98	1,134	1,069,000	3,121,000
Saw mills	4,946	13,087	9,892,000	14,655,000
Brick manufactories	269	4,700	1,103,000	1,719,000
Marble manufactories	139	1,983	713,000	1,836,000
Stone cutting manufactories	60	1,407	480,000	1,165,000
Boot and shoe shops	1,463	10,372	1,061,000	6,083,000
Harness, trunk, and saddle manufactories	594	1,613	481,000	1,580,000
Morocco factories	30	509	222,000	2,899,000
Tanneries	868	5,525	3,366,000	15,642,000
Cabinet making shops	606	4,746	1,311,000	4,510,000
Piano-forte manufactories	67	1,594	649,000	2,611,000
Glove and mitten manufactories	69	3,350	72,000	1,202,000
Hat and cap manufactories	123	3,186	541,000	4,029,000
Tailor shops	561	21,361	1,796,000	11,842,000
Umbrella and parasol manufactories	21	863	88,000	1,176,000
Butcher shops	87	351	142,000	3,113,000
Tobacco and cigar manufactories	142	1,920	584,000	2,261,000
Unenumerated manufactories	133	2,475	1,698,000	1,595,000
Total	20,108	161,923	$85,632,000	$258,801,000
All others	4,725	52,976	22,718,000	58,627,000
Grand total	24,833	214,899	106,350,000	317,428,000

CONSUMPTION OF COAL IN THE LAKE REGIONS.

The following is the first statement of the amount of mineral coal consumed on the waters of the northern lakes. At some of the ports where it is received from the interior it is not practicable to ascend to the very first receipts, but the quantity which arrived prior to the dates below given must have been small. A large portion, probably one-half, of that for Buffalo and Oswego, is the *anthracite* or hard coal, and the remainder bituminous.

It is only recently that railroads have delivered coal in large quantities, but they are already competing with the canals for that business. At Chicago, prior to 1857, the railways had brought in 13,559 tons only; in 1857, they delivered 30,671 tons, and the canal only 6,566. Of the amount that reached Buffalo in 1857, 13,778 came by rail. At Cleveland during the year next previous to January 1st, 1858, the roads delivered 185,574 tons, and the canals 135,816.

About one-half of all the coal business of the lakes has been done at Cleveland. Of this there had been, prior to January 1st, 1856, only 78,048 tons brought in by railroads. The column of totals shows a remarkably rapid and uniform increase in the use of coal. In the interior of the country, especially in the mining regions, the same thing is observed. The stack furnaces of Northern Ohio, that use raw coal in making pig iron, consume about 50 tons a day each.

As the metal thus produced from Lake Superior ores is nearly equal in value to charcoal pig, we may expect a large increase of such furnaces. The demand for coal is not likely therefore to diminish.

MINERAL COAL RECEIVED AT THE LAKE PORTS FROM CANALS AND RAILROADS.

Years.	Cleveland.	Erie.	Buffalo.	Chicago.	Oswego.	Total.
1829.....	708	.....	.....	.....	.....	708
1830.....	178	.....	.....	.....	.....	178
1831.....	294	.....	.....	.....	.....	294
1832.....	431	.....	.....	.....	.....	431
1833.....	1,719	.....	.....	.....	.....	1,719
1834.....	3,347	.....	.....	.....	.....	3,347
1835.....	1,776	.....	.....	.....	.....	1,776
1836.....	2,944	.....	.....	.....	.....	2,944
1837.....	6,421	.. ...	.....	.....	.....	6,421
1838.....	2,496	.. ...	.....	.....	.....	2,496
1839.....	4,901	.....	.....	.....	.....	4,901
1840.....	6,028	.....	.....	.....	.....	6,028
1841.....	16,744	.....	.....	.....	.....	16,744
1842.....	16,339	.....	.....	.....	.....	16,339
1843..... ...	13,574	.....	.....	.....	.....	13,574
1844.....	18,901	.....	.....	.....	.....	18,901
1845.....	31,136	15,000	.....	.....	.....	46,136
1846.....	28,133	27,500	.....	.....	.....	55,633
1847.....	44,401	51,000	.....	. ...	.....	95,401
1848.....	66,351	70,000	.....	.....	.....	136,351
1849.....	66,801	79,613	.....	.....	.....	146,414
1850.....	83,850	57,541	.....	.....	.....	141,591
1851..... ...	107,135	72,943	.....	.....	.....	180,078
1852.....	137,926	76,650	.....	3,310	.....	217,886
1853.....	173,915	103,031	23,313	2,195	1,204	323,658
1854	170,975	95,610	35,313	4,621	26,398	332,924
1855.....	299,803	141,184	43,371	9,569	27,617	521,544
1856.....	246,995	112,011	51,381	9,295	48,871	468,557
1857.....	321,390	126,159	71,374	37,327	65,569	621,819
Total.....	1,875,611	1,048,443	224,752	66,327	169,659	3,384,792

TOBACCO IN FRANCE.

The quantity of tobacco used in France is now, as seen in the operations of the "Regie" for 1855, as follows:—

	Per 100 kilos., f. c.	Quantity, kilogrammes.	Value, francs.
Domestic leaf	76 27	15,318,915	11,684,000
European leaf	103 11	4,993,432	4,220,974
American leaf	105 43	10,851,609	20,931,837
Cigars—37,981,875	2,563 11	151,927	3,894,066
" manufactured	723 05	4,990	36,081
Taken back from debtors	132 56	100,588	133,348
Total		39,521,462	40,899,807

To this cost of raw material was to be added transportation, 287,777 francs, and other expenses, making together 53,746,326 francs. The sales of the Regie were as follows:—

	Kilogrammes.	Francs.
Refuse, &c	872,102	1,240,639
Lost and damaged	62,553	72,668
Ordinary, sold at 7.25 francs per kilogramme	14,894,586	107,994,838
Snuff, " 2.24 " "	5,851,592	13,149,448
Common, " 1.30 " "	1,148,095	1,496,655
Choice & cigars, 45.32 " "	1,701,133	28,524,748
Total	24,530,093	152,478,698
Add sundry receipts and duties		718,717
Total		153,197,415
Less expenses, as above		53,746,326
Profit		99,451,089
Add increase of stocks and buildings		14,365,494
Total profit of year		113,816,583

The stocks of tobacco on hand at the close of the two years were as follows:—

	December 31, 1854. Kilogrammes.	December 31, 1855. Kilogrammes.	Francs.
Domestic leaf	15,437,874	16,541,172	16,166,669
European	1,126,720	3,501,848	4,318,195
American	18,582,534	26,665,959	28,338,056
Other	12,101	2,325	6,619
Partially made	15,654,403	15,502,857	22,037,860
Manufactured	4,116,144	2,272,598	6,283,081
Havana cigars	142,124	118,763	2,860,539
Returned	8,176	11,392	19,093
Refuse	258,430	239,355	.....
Total	55,338,507	65,856,171	80,030,110
Buildings and machines			15,771,740
Total			99,801,851

In 1835 the receipts were 74,000,000 francs, and every year since has shown an increase of profits, which have risen from 51,000,000 francs to 99,000,000 francs, or an average of 2,000,000 francs annual increase of profits. This is a very singular result for a government operation, and would afford an example of integrity for employees of governments in some countries. It will be observed that American leaf is the great staple of the manufacture, being rather more than one-half, but that the stock of it on hand has much increased at the close of the last year. It also commands the highest price which the government pays for raw tobacco, being 30 per cent more than French growth. The sales of cigars seem to be small; they are of a size 250 to the kilogramme of 2.2 pounds, which would give 9 pounds to the thousand. The average prices of these is 45f. 32c. per kilogrammme, or 181 francs ($34 50) per thousand.

STATISTICS OF AGRICULTURE, &c.

VINE-GROWING IN MISSOURI.

A correspondent of the New York *Tribune* thus describes a visit to the vineyard of Missouri. That class of industry is destined, no doubt, to reach a great magnitude in this country. In Ohio 400,000 gallons are made annually, worth $1,000,000. In California the business receives an immense development, but Missouri is described as peculiarly fitted for it:—

I stopped first at Herman, (about eighty miles from St. Louis,) and in waiting at the tavern for a vine-grower, whose place I was to visit, I watched the people coming in. There was something extremely social and careless about them, yet at the same time they seemed like thrifty, well-to-do people. Very few called at the bar for whisky or brandy; but the most took a glass together of the light native wine, and chatted socially over it, sometimes sitting at a table to do so, which civilized custom has yet to be introduced in most parts of the United States.

The talk was a good deal of vines and land. At length the vine-grower whom I expected came in, and I accompanied him through the village. It is a very comfortable, thriving-looking little town, the houses built mostly of brick, with pleasant gardens surrounding them. The population is about 1,200, of which I understand there is not one an American. The place has two or three schools, supported by public funds, and two churches—one Lutheran and one Catholic. My friend's vineyard lies upon one of the hills overlooking the Missouri. "*Ein herrliches land!*" "a glorious country!" he says, with enthusiasm, as we reach the top and cast our eyes over the landscape. For miles away on the side of the river where we were, there was a broken view of vine-topped hills, while the lower slopes were heavy with rich woods, and the valleys green with grain. Beyond the river a luxuriant growth of cottonwood and sycamore covered the rich flats. In the country beyond these, Mr. R. said, were some of the richest plantations of the State, worked by negroes.

Mr. R.'s house was a little house, such as any new settler might have, but you notice the contrast to the usual American's cabin in the few flowering trees left near by, and some truly German garden-beds laid out under the windows. Otherwise, the whole hill-slope was covered with vines, usually trained on two poles bound together, about five feet apart. This German had been there some twelve years, and now possessed a most valuable little property. His wine had taken the prize lately in St. Louis, even over Longworth's Catawba. Most of the settlers, he said, were very prosperous, and their wine was coming into great demand. They covered the barren hill-tops far in the interior with their vineyards. They lived a good deal by themselves, and had nothing to do with the slaveholding Americans, and he believed had a happier life than any other Germans in the Western country. The town had produced last year some 80,000 gallons of wine.

The good situations for vineyards, he states, cost from $1 to $5 an acre; those which are already improved, $15 or $20. It needs three or four years' preparation before a vineyard pays its cost. During this time the vine-grower can support himself by farming and other work. Still, to succeed, each new immigrant should have some $200 or $300 capital to build his wine cellar and house, buy his cattle, and pay extra labor. After three or four years, the vineyard will yield on an average from 250 to 300 gallons of wine to the acre; a very favorable site has been known to produce 1,000 gallons, and 400 was the lowest Mr. R.'s place had given. One man, with industry, can manage five acres. The wine is worth from $1 25 to $1 35 per gallon, so that $400 an acre is a common return. Mr. R. had sold his wood on the place the first year for $300, and had received one

year 400 gallons from half an acre. It will be seen at once that no other agriculture of the United States presents such returns. Of other expenses, the wages of labor are now from 75 cents to $1 a day, or $12 to $15 a month; a cow costs from $18 to $20; a pair of oxen, $45 to $50; a horse, $60 to $70. Wood is worth about $2 50 a cord; potatoes, 10 cents a bushel, and wheat 50 cents. Labor is always in demand, and, as may be seen from the prices of food, is exceedingly well paid. The best varieties of vines he had found to be the North Virginia Seedling, Catawba, and Isabella.

Thus far the climate has been more favorable to the vineyards than it is in Germany. They have had no year in which the yield has not paid the labor; while on the Rhine, as is well known, there will be years in which the proprietors of the vineyards get no return at all, and the poor tenants, who make up the population of vine-dressers, fall into great distress and poverty. The worst weather in Missouri is the sultry, moist heat of July—only a few sorts can survive this; but the frosts and storms of September and October, which destroy the vines or fruit in Germany, the American vineyards entirely escape. I asked Mr. R. what effect he considered this culture of the vine to have on the habits of his countrymen. He thought that those living in this vine region were much more sober than the Germans of the cities, and that the native wine was already driving out whisky and brandy from use among the Americans.

WINE CROP OF AUSTRIA.

The culture of the vine in Austria is second in rank only to that of France, notwithstanding which, with the exception of some of the finest Hungarian wines, the Austrian products are nearly unknown to the general markets. Some of the largest wine dealers have lately undertaken to extend the sales of Austrian wines, but as yet with more honor than profit. The following shows the annual products of the different States:—

Ungarn.....ohm.	18,582,000	Tyrol .....ohm.	764,000
Woiwoidie.....	4,431,000	Karnthen.....	710,000
Croatien und Slavonien....	3,608,000	Militar Grenze.....	636,000
Venedig.....	3,525,000	Mahren.....	565,300
Lombardie.....	2,250,000	Krain	377,000
Nieder Oesterreich.....	1,577,000	Bohmen	13,000
Siebenburgen.....	1,506,000	Ober Oesterreich.....	300
Stiermark.....	1,365,000	Bukowina.....	200
Delmatien	1,200,000		
Total.....ohm.			41,110,800

The ohm is of various capacities—that of Cologne is 36 gallons, which would give a product of nearly 1,500,000,000 gallons for a population of 60,000,000 people, or 25 gallons per head.

In the French wine districts the grape disease is said to be renewing its ravages, although in but few localities, and may be controlled by the application of sulphur. The demand for consumption has been more active in Bercy. In Bordelais the fine promise of the crops keeps down the price. The promise is also good in Beaume, Macon, and Burgundy. The prices of old wines are very firm. In Paris, however, prices are lower.

THE GOVERNMENT AND AGRICULTURE.

The House of Representatives at Washington has passed a bill donating land to the several States for the benefit of agriculture and the mechanic arts. The bill was introduced by Mr. Morrill, and passed by yeas 104, nays 101. It grants six millions three hundred and forty thousand acres of land, to be apportioned to each State in a proportionate degree with its number of Senators and

Representatives—which is equal to twenty thousand acres for each Senator and Representative in Congress—to which the States are now respectively entitled. The proceeds of the sales of these lands are required to be invested in stocks of the United States, or of the States, or some other safe stocks, and the money so invested to constitute a perpetual fund, the interest of which shall be inviolably appropriated by each State to the endowment, support, and maintenance of at least one college, where the leading object shall be, without excluding other scientific or classical studies, to teach such branches of learning as relates to agriculture and the mechanic arts, in such manner as the Legislatures of the States may prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

IRISH AGRICULTURAL STATISTICS.

The annual tables are published by the Registrar-General, Mr. Donnelly. They now appear in a much better arranged form, the acreage and the produce per acre being placed side by side, thus enabling the reader, at a single glance, to make the requisite comparison. They also show "the estimated average produce of the crops for the year 1857, and also of the diversity of weights used in buying and selling corn, potatoes, and flax in Ireland."

With regard to the first, the extent, the estimated total produce, and the estimated average yield per statute acre of the principal crops grown in Ireland, in each year, from 1851 to 1857, both inclusive, are shown in the following summary:—

EXTENT UNDER CROPS IN STATUTE MEASURE.

	Wheat.		Oats.		Barley.	
	Acres.	Quarters.	Acres.	Quarters.	Acres.	Quarters.
1851.....	504,248	1,493,525	2,189,775	10,771,236	282,617	1,375,518
1852.....	353,566	1,154,205	2,283,449	11,712,528	249,476	1,257,398
1853.....	326,896	1,133,585	2,157,849	10,690,881	272,614	1,398,705
1854.....	411,284	2,452,467	2,045,298	11,293,101	236,293	1,212,047
1855.....	445,775	1,520,819	2,118,858	10,266,350	226,629	1,097,631
1856.....	429,050	1,629,963	2,037,437	9,236,869	182,796	757,586
1857.....	559,646	1,662,957	1,980,934	8,895,347	211,288	848,788

EXTENT UNDER CROPS.

	Bere.		Potatoes.		Turnips.	
	Acres.	Quarters.	Acres.	Tons.	Acres.	Tons.
1851.....	53,347	286,149	868,501	4,441,022	383,548	6,081,326
1852.....	40,933	231,075	876,532	4,255,604	356,790	5,675,897
1853.....	28,380	153,765	898,733	5,741,538	399,377	6,562,471
1854.....	16,920	89,066	989,660	5,061,654	329,170	5,207,636
1855.....	11,185	56,848	982,301	6,235,281	366,953	6,073,598
1856.....	6,554	32,778	1,104,704	4,408,543	354,451	4,581,172
1857.....	6,026	28,553	1,146,647	3,509,344	350,047	4,360,197

EXTENT UNDER CROPS.

	Mangel Wurtzel.		Flax.		Hay.	
	Acres.	Tons.	Acres.	Tons.	Acres.	Tons.
1851.....	25,847	466,285	140,536	33,861	1,246,408	2,518,977
1852.....	30,330	557,189	137,008	35,462	1,270,713	2,690,598
1853.....	33,283	588,988	174,579	43,863	1,270,742	2,518,984
1854.....	21,351	366,427	151,403	35,606	1,257,864	2,494,951
1855.....	22,839	402,958	97,075	23,428	1,314,807	2,662,046
1856.....	22,071	287,838	106,311	18,791	1,302,787	2,492,732
1857.....	21,449	298,515	97,721	14,475	1,369,822	2,566,644

The above figures show that throughout Ireland there was a falling off in the acreable produce.

STATISTICS OF POPULATION, &c.

POPULATION OF THE MISSISSIPPI VALLEY.

From the speech of T. C. Reynolds, Jr., at a meeting at St. Louis, January 17, 1858, we take the following table of the growth of the "valley":—

GROWTH OF NON-SLAVEHOLDING VALLEY STATES.

	1790.	1800.	1810.	1820.	1830.	1840.	1850.
Ohio.....	.....	45,365	230,760	581,434	937,903	1,519,467	1,980,329
Indiana..	.....	4,875	24,520	147,178	343,031	685,866	988,416
Illinois...	.....	.....	12,282	55,211	157,445	476,183	851,470
Michigan..	.....	.....	4,762	8,896	31,639	212,267	397,654
Wisconsin	.....	.....	.....	.....	.....	30,945	305,394
Iowa....	.....	.....	.....	.....	.....	43,112	192,214
Total..	.....	50,240	272,324	792,719	1,470,018	2,967,840	4,715,474

GROWTH OF SLAVEHOLDING VALLEY STATES.

Kentucky.	73,077	220,955	406,511	564,317	687,917	779,828	982,405
Tennessee.	35,791	105,602	261,727	422,813	651,904	829,210	1,002,717
Alabama..	.....	.....	.....	127,901	309,527	590,756	771,623
Mississippi	.....	8,850	40,352	75,448	136,621	375,651	606,626
Louisiana.	.....	.....	76,556	153,407	215,739	352,411	517,762
Arkansas.	.....	.....	.....	14,273	30,388	97,574	209,897
Missouri...	.....	.....	20,845	66,586	140,455	383,702	682,044
Texas....	.....	.....	.....	.....	.....	.....	212,592
Total...	108,868	335,407	805,991	1,124,745	2,202,551	3,409,132	4,985,666

Of German born residents in the United States in 1850, there were 44,352 in Missouri, 38,160 in Illinois, 28,584 in Indiana, 7,152 in Iowa, and 4,319 in Massachusetts. Even in Wisconsin there were fewer (34,519) than in Missouri. The numbers of the German population in the several States ranked in 1850 as follows:—New York, 120,609; Ohio, 112,032; Pennsylvania, 79,005; Missouri, 45,049. Missouri, a slaveholding State, and the tenth in rank in respect to population, contained more German born than any of the States except the three largest.

The population born in Great Britain and Ireland was distributed in 1850 as follows:—New York, 458,931; Pennsylvania, 205,983; Massachusetts, 137,285; Ohio, 88,303; Illinois, 51,647; Wisconsin, 47,841; New Jersey, 44,898; Connecticut, 33,807; Louisiana, 29,060; Michigan, 26,538; Maryland, 24,377; Rhode Island, 21,434; Missouri, 21,338; Indiana, 19,847. Missouri was thus the thirteenth in point of population from the British Isles, but was more favored by them than the free State of Indiana has been. Of the whole foreign born population in the United States in 1850, New York had 651,801; Pennsylvania, 294,871; Ohio, 218,512; Massachusetts, 160,909; Illinois, 110,593; Wisconsin, 106,695; Missouri, 72,474. Thus Missouri was the seventh State in rank in regard to the number of foreign born population; Indiana having 54,426; Iowa, 21,232—both less than Louisiana, which had 66,413.

POPULATION OF THE GRANADIAN CONFEDERATION.

On the 22d of June, by the going into effect of the new constitution, the "Republic of New Granada" ceased to exist, its place being taken by the

"Granadian Confederation," consisting of the States of Antioquia, Bolivar, Boyaca, Cauca, Cundinamarca, Magdelena, Panama, and Santander. The population of these States, their representation in the National Congress, and their general revenue, are shown in the annexed table:—

	Inhabitants.	Senators.	Representatives.	Revenue.
Antioquia	244,441	3	4	$143,000
Bolivar	182,157	3	3	109,000
Boyaca	379,682	3	9	58,000
Cauca	330,331	3	6	.....
Cundinamarca	517,648	3	9	132,000
Magdelena	73,093	3	1	60,000
Panama	138,108	3	2	93,000
Santander	378,376	3	6	83,000
Total	2,243,837	24	40	$678,000

The general limits of the confederacy are the same that divided the Vice Royalty of New Granada, in 1810, from the Captain Generalities of Venezuela and Guatemala, and from the empire of Brazil; and provisionally, on the other side, the boundary established by treaty with Ecuador, in 1856, and those at present dividing it from that republic. By the new constitution, the term of office for the president is four, and of the senators and representatives two, years. All are to be elected by a direct popular vote.

NORTH AMERICAN PROVINCES.

Four great political events have taken place in the history of North America —the overthrow of the French power by the capture of Quebec in 1759; the American Revolution of 1776; the settlement of our Northeastern Boundary dispute by the Ashburton Treaty in 1842; and the Reciprocity Treaty of 1854. Another one of equal importance is foreshadowed in the movement of Mr. Galt, in the Canadian Parliament, for a Federal Union of British North America. Some will venture to extend these speculations still farther, and predict a final union with the Northern States, and a new political division of the continent. The Provinces and territories of British North America are as follows:—

	Square miles.	Population.
Canada East	201,989	890,261
Canada West	148,832	952,004
New Brunswick	27,700	193,800
Newfoundland	35,913	101,600
Nova Scotia	18,746	276,117
Prince Edward's Island	2,134	62,678
Total of Provinces	435,314	2,476,460
Hudson's Bay territory	2,480,000	180,000
Labrador	5,000	100,000
Vancouver Island	8,000	2,000
Total	2,928,314	2,758,460

POPULATION OF KANZAS.

The St. Louis *Democrat* gives the following figures in relation to the population of Kansas:—

The population of Kanzas is 80,000—of which Leavenworth City furnishes 8,000, and Leavenworth County 15,000. The portion of the Territory north of Kansas River embraces over half of the population of the Territory, and only

one-third of the settled country. Atchison County contains 8,000 population; Doniphan, 8,000; Nemaha, 2,000; Brown, 2,000; Marshal, 1,500; Calhoun, 3,000; Potawatamie, 2,500; Riles, 2,000; Jefferson, 3,000. Leavenworth, Jefferson, Potawatamie, Brown, and Doniphan contain Indian reservations, unsettled by the whites. The population of Indians who still retain their tribal relations is about 3,000. Leavenworth County is the most wealthy in the Territory—Atchison, Doniphan, and Douglas next in order. The principal towns along the river are, commencing at the mouth of Kansas River, Wyandotte, situated at the junction of the Kansas and Missouri, population 1,200; Quindaro, on the Wyandotte lands, population 800; Weimar, settled by Germans, probable population 400; Delaware, population 500; Leavenworth, population 8,000; Fort Leavenworth, permanent population 500; Kickapoo, population 500; Sumner, population 450; Atchison City, population 1,500; Doniphan, population 1,000; Palermo, population 800; Elwood, population 1,000; Iowa Point, population 800; White Cloud, population 600.

SERF POPULATION OF RUSSIA.

The Russian Minister of the Interior has recently made a report upon the new movement of the government in relation to the freedom of the serfs. From that report we extract the following interesting statistics of the number and condition of the serfs of that empire:—

In Great Russia there are 30,000 serfs who are not to be farmed with the ground; they belong to 5,000 masters, who, if they do not employ them themselves, are to receive from them two-thirds of what they earn by their labor and their industry. The practice of selling them is allowed. The women of that class, called *ludi bassemelei*, (persons without land,) are much to be pitied. The number of owners who have from one to twenty serfs is 49,708, with 742,420 serfs. The latter, belonging to owners in poor circumstances, are in a very unfavorable position. The owners who have from 21 to 100 serfs are 36,024 in number, with 3,271,648 souls. The fate of the serfs of that category is scarcely better than the preceding one. The number of owners in easy circumstances, who have from 100 to 1,000 serfs, is 19,808, with 7,807,000 souls. That of the rich owners, having from 1,000 to 2,000 souls, is only 2,468, having altogether 3,230,268 souls. There are only 1,447 lords who possess more than 2,000 serfs; the total number of these latter is 6,567,066 souls. The official report adds that out of the twenty-three-and-a-half millions of serfs belonging to the nobility, more than thirteen millions are mortgaged to the crown, as guaranty of loans amounting to 397,879,459 roubles.

POPULATION OF THE WORLD.

Herr Dietrich, a distinguished professor of the University of Berlin, quoted by the Philadelphia *Bulletin*, has lately addressed a paper to the Academy of Sciences of that city, in regard to the world's population, and it is generally agreed that it is the most carefully prepared and most reliable work that has yet appeared on this interesting subject. After some detailed estimates in regard to the five great divisions of the world, he arrives at the conclusion that its present population is about twelve hundred and eighty-three millions, as follows:

Population of Europe	271,000,000
" Asia	730,000,000
" America	200,000,000
" Africa	80,000,000
" Australia, &c	2,000,000
Total population of the globe	1,283,000,000

This estimate is somewhat larger than had been before made.

MIGRATION FROM GREAT BRITAIN.

The annual report of the British Emigration Commissioners, just published, states the total emigration from the United Kingdom for the past year to have been 212,875, showing a moderate increase on the two preceding years, but still a falling off of 126,649 from the average of the four years from 1851 to 1854. The number of emigrants who returned from the United States during the year was 15,448, of whom 11,154 arrived in the last half of the year, during the progress of the commercial crisis. Last year the remittances from the United States by previous Irish emigrants, to enable their friends to join them, amounted to only £593,165, while the average of the preceding ten years was about a million sterling.

MERCANTILE MISCELLANIES.

OCEAN STEAMSHIPS.

The New York *Shipping List* remarks that the United States have but 57 ocean steamers, measuring 94,795 tons, while Great Britain has 1,670, with 666,330 aggregate tons. We have 22 steamers, of 45,000 tons, engaged in the foreign and domestic mail service, while Great Britain has 121, of 235,488 aggregate tonnage, engaged in the foreign mail service almost exclusively. We have 37 steamers engaged in the coasting trade, while she has 1,548 similarly employed. So much importance does Great Britain attach to postal and passenger facilities, as connected with her commercial prosperity, that she expends annually for her foreign steam mails nearly six millions of dollars, while they do not return to her treasury much above three; and the disparity is constantly increasing.

Ocean steamships are not suitable for the general transportation business, but only for the rapid conveyance of mails, passengers, specie, and costly freights. To obtain a high rate of speed makes necessary a greatly increased strength in all parts of the vessel, more frequent and costly repairs, and an enormous consumption of fuel.

The Collins steamers have been running but six years, and yet their repairs have amounted, in all, to more than the prime cost of the ships, or to about 18 per cent per annum. They were as well and as strongly built as any ships in the world.

The depreciation, with all these repairs, has not probably been above six per cent per annum. They will, however, probably depreciate ten per cent during the next six years, and at the age of twelve or fourteen years will be unfit for service. The steamers Washington and Hermann, which had strong hulls, have been run eight years, and are now nearly worthless. Their depreciation has been, at least, ten per cent per annum. The steamers Ohio and Georgia, which Commodore Perry and other superintending navy agents pronounced to be well built and powerful steamers, ran only five years, and were laid aside, and said to be worthless.

It is said that American steamers do not, upon the average, last above ten years. The great cost of coal is apparent from the single fact that the 270

steamers in the British navy, with about 50,000 aggregate horse power, consumed in 1856, 750,000 tons. It is laid down as a rule of general application, that the power of coal necessary to produce speed, increases as the cube of the velocity. Taking a Collins steamer of 3,000 tons, we find that in running fourteen miles per hour, as they have frequently done, the consumption would be 128 tons per day, or 1,252 tons for the passage. And yet one of those steamers could make twelve miles per hour on 80.4 tons per day, or eleven miles per hour on 61.9, or less than half that used at fourteen; all going to prove that fast mail steamers cannot live upon their own receipts on the ocean.

The greater the speed of a steamer, the less is it able to carry freight; and the time will doubtless soon come when the fast mail packets will take nothing except a few express packages. The Persia now takes scarcely any freight, and the Vanderbilt cannot think of doing it when she makes fast trips.

The trip of the Arago or Fulton to Havre and back, costs about $45,000.

To put a new set of boilers in one of the Collins steamers costs about $110,000, and this must be done every six years.

The facts in this matter are obtained from a treatise on Ocean Steam Navigation, by Thomas Rainey, Esq. Mr. Rainey, having been long stationed on the Coast of Brazil as United States Commercial Agent, where English lines of steamers monopolize all the most valuable carrying and passenger trade, he is enabled to speak intelligently on the subject.

PRINCIPLE AND INDUSTRY.

In a great commercial community, the temptations to moral obliquity and practical dishonesty are so strong as to require great watchfulness on the part of the tempted to resist the allurements. Many have fallen. Many probably will hereafter fall, who would have stood firm, had they acted on principle. There is no guiding-star like principle for a young man to keep his eye on, while so many doleful meteors are dancing before his vision. Principle may have often to contend with formidable difficulties, and must frequently practice self-denial. But great is its reward. Dexterity and deception may go around difficulties, or conceal them from view, but nothing is gained thereby, not even the comfort of having striven well, and of being invigorated in the process. Inherited wealth is not desirable to our young men who go into business. The poorest young man should not be discouraged. We know such an one, whose father was an indifferent countryman, taking little interest in the moral and intellectual progress of his children, and barely provided for their bodily wants. His son, a lad of fourteen or fifteen, was seized with a desire of being something. But he wore patched clothes, knew nothing of the world, had no apparent recommendation but his poverty and greenness. Really, however, he had principle and industry. These were led on by resolution, and these scarcely-developed attributes were better to the youth than a "fortune." He resolved to try his hand in a commercial city, started on foot with his pack, and walked a hundred and fifty miles to "find work"—a thing almost always to be found in this happy country. The boy on arriving in this city, first directed his steps to the house of a citizen, who had some acquaintance with his father, or his father's friends. The gentleman was astonished at his temerity. Finding him without letter of recommendation, without any specific plan, with little prospect of being acceptable to any one in

the city, wearing, as he did, patched pantaloons, he was about to advise him to return home, but thought he would at least make the trial for the place. Accordingly, he started out, and inquired from shop to shop, but no one wanted the boy. At last, a common grocer consented to take him, to do menial jobs about the store—to carry water and the like. The boy entered upon his duties, humble as they were, with alacrity and hope. He summoned to his support principle and industry. What he did, he did well, and he was content with his condition, till a broader field should be opened. He was honest and active, studious of usefulness, ingenious in promoting the interests of his employer in various humble ways—in a word, filling the lowly sphere he occupied, as one who is "faithful in little." This was the secret of his success. He was observed, and invited to a somewhat better situation. This he felt it his duty to strive to fill still better, and he succeeded. He began to be in demand for business of a superior kind. It was found that he was capable of serving the dry goods dealer with skill and success.

All his patches had disappeared, (though he kept them privately in membrance of his poor mother;) he was engaged about neat work; he made himself pleasant to customers, and profitable to employers. He scorned the habits which have ruined so many clerks; drank no liquors of any kind; visited no places of play; kept no guilty secrets; sought his female company openly among the pure and virtuous of the sex, and went to church on the Sabbath. He began with principle, and principle grew in habit. He was sober, active, industrious. He could not conceal, though he sought not to display, his silent qualities. Men in solid and extensive business made him large offers, and a noted firm even sought him in partnership. We need scarcely add that the poor boy, now a grown and married man, is among the wealthiest in one of our commercial cities, and more than this, a really useful citizen. As he adhered to principles, his principles have exalted and promoted him. As he "wielded the hand of the diligent," it hath "made him rich," in a sense beyond that of silver and gold. Let our young men ponder this example.

IRON MOUNTAIN OF MISSOURI.

The Iron Mountain of Missouri is probably one of the greatest natural curiosities on the surface of our globe. Think of a mammillary formed mound or mountain of iron three miles in circumference, rising in the form of a cone or pyramid, three hundred feet high above the surrounding valleys—a great mass of the richest specular iron known, wedged in between a country formed of magnesian limestone on the one side, and porphyrytic granite on the other. Where did this great mountain of iron come from? was it formed in the iron age of our globe? and when did the iron age have its commencement and end? Let us take the lights that the science of the rocks has revealed, and go back with the geologists in the early ages of the Iron Mountain region. Geologists say that the rock on the west side of the mountain belongs to the lower silurian limestone era. The boring of Belcher's Artesian Well, tells us that this same bed of rock, which forms the surface of the country on the west side of the mountain, is in the well 2,000 feet below the bed of the Mississippi River, a dip of 2,800 feet from the mountain to St. Louis. Geologists say that this dip was necessary to form the great basins which contain coal in the central part of Illinois. On the east side of the mountain a granite country is found. Is this granite older or newer than the limestone? and is the mountain of the same age as the granite? These are questions that present themselves in the study of this great iron center. The Iron Mountain is the period or terminus of what is known

as the Ozark Mountains, a range of granite ridges and table lands that reach through Missouri, Arkansas, and the Indian country, to the Rocky Mountains. One fact may be kept in view in the study of the age of the Iron Mountain. It is found that all the developments in the vegetable or mineral kingdoms on our globe have been corresponding to the wants of animal organisms that existed at the same era. In the time of the mastodon and huge saurian dynasties, the vegetation was of a corresponding gigantic growth, the atmosphere was also suited to that class of animal life. Reasoning from this analogy, we might conclude that the Iron Mountain was formed at a comparatively recent geological epoch, as it was evidently formed to supply with iron the wants of the present race of man, and there was no necessity of its existence until man was in a position to use it. Let us go back to the age of our globe, when commenced the era of silurian system of rocks. The district where now stands the Iron Mountain was at that period a tabular mass of stratified rocks in the bed of an ancient ocean; no valley, ridge or mountain had yet come into existence. The beautiful system of physical geography, the abrasion of valleys in the solid rock, the fountain from which now break out a thousand springs in this iron district, were yet in embryo. But this tabular mass of rock in the beds of this ocean is not always to remain in repose. The elevating and abrading forces, the great working laws of nature, are to act. This region of country is placed under their influence—and silently and quietly the stratified rocks are raised; granite ridges come to-day above the surface of this ocean. Meteoric forces, connected with the sun and every planet in our solar system, are in action—we might say that electricity and its active partner, magnetism, are prime agents—age after age rolls round. The Devoman system of rocks is formed. The wonderful era of the formation of the coal-bearing rocks, and the growth of the vegetation entombed in our coal fields, has its comment and end; following this comes the tertiary era, with its mastodons and huge saurian monsters—after them the aborigines, and then the present race of man. Let us look again. The horizontal table of rock of the silurian era in the bed of that ancient ocean is now the Iron Mountain region, modeled by the great working laws of nature to one of the most interesting mineral centers on the surface of our globe. The task of the geologist for coming ages will be to trace out by observation the changes through which this country has passed, and map out and mark down in each era spoken of, the changes of the Iron Mountain from the silurian era down to the present time.

END OF THE BRITISH EAST INDIA COMPANY.

The events of the past few years having put the seal to the fate of this most stupendous commercial institution, the London *Times* notices its close as follfollows:—

The India bill was read a third time and passed in the House of Commons last night. No opposition is expected in the Lords, and we may accordingly consider that the measure will, in a few days, become law. So ends the great East India Company. It is impossible to contemplate the extinction of so mighty and historical a corporation without a feeling similar to that with which Gibbon heard the monks chanting in the Flavian amphitheater, and beheld the cows feeding in the Roman forum. For good or evil, a power has passed away from the earth. After an existence of more than two centuries and a half, the corporation, which was called into being by a charter of Elizabeth, will be extinguished by the royal assent expressed by the Commissioners of Victoria. Every one must feel that the East India Company had lived its allotted term; and that if it now descends, full of years and honors, into the grave, it is best for its own reputation and for the public good. In fact, the East India Company had for many years ceased to exist as an independent power. What was called by the name of the company was an apparatus, by which a certain number of men, in some degree conversant with Indian affairs, were brought together and allowed a voice in the goverment of the British possessions in Asia. Since the act of William Pitt, the independence of the company has been but a shadow. Legis-

lation, within the present century, took away the exclusive trade to India and China, then prohibited trade altogether; and within the last few years has given the crown the nomination of a portion of the directors. The other directors have been elected by the stockholders, a body whose dividends are guarantied, and who have no more connection with India than the holders of consols or of railway shares. In fact, the so-called company has been only a cumbrous machine of double government, having a nominal identity with the corporation which sent out Clive and Coote to conquer. Any friend of the company who does not wish it to realize the line—

Superfluous lags the veteran on the stage,

might well be glad that its existence has been brought to a close at a period when it has become powerless for good, and can only exist as the instrument of intriguers and the obstacle of efficient administration.

HOARDING SPECIE.

There is evidently a great abundance of silver and gold coin in circulation, particularly gold; and it is probable that the amount of specie in the country which is not circulated, but carefully hoarded in old stockings, tin boxes, cavities in brick and stone walls, and in various out-of-the-way places, nearly equals that which is in actual circulation. Now and then some very remarkable cases of hoarding come to light. A few days since we learned the particulars of one of these cases, from a Boston broker. He had just purchased a quantity of coin of which the history was as follows:—The coin was purchased of the heirs of an old man who died recently in Barnstable County. He was an old resident of that county, and lived to be 94 years old. He was the owner of the house and land which he occupied; but it was not supposed that he had much property beyond this real estate, although it was known that he was very close and miserly in his habits. After his death, his premises were searched and specie of various kinds was found to the amount of about *fifty thousand dollars!* Many of the Spanish dollars were of ancient date; but they showed by their color and perfect stamp that they had not circulated much since their coinage. The Spanish gold pieces were enclosed in scraps of parchment, on which the value of each was marked; and the date indicated that they had been thus hoarded for a long period. In all probability a large part of this gold and silver had been in his possession more than half a century.

THE AMOUNT OF FOOD CONSUMED BY A MAN DURING HIS LIFETIME.

Mr. Alexis Soyer, the celebrated professor of the gastronomic art, entered into a calculation, which he published in the London *Times*, as to the amount of flesh, fowl, and fish eaten by a man in an average lifetime, and among the items we find the following enormous quantities:—

Thirty oxen, 200 sheep, 100 calves, 200 lambs, 50 pigs; in poultry, 1,200 fowls, 300 turkeys, 150 geese, 400 ducklings, 263 pigeons, 1,400 partridges, pheasants, and grouse, 600 woodcock and snipe, 600 wild pigeons and teal, 450 plovers, ruffs, and reeves, 800 quails, ortolan, and dotterills, and a few guillemots and other foreign birds; also 500 hares and rabbits, 40 deer, 120 guinea fowl, 10 peacocks, and 860 wild fowl. In the way of fish, 120 turbot, 140 salmon, 120 cod, 260 trout, 400 mackerel, 300 whitings, 800 soles and slips, 400 flounders, 400 red mullet, 200 eels, 150 haddock, 400 herrings, and 5,000 smelts; and some hundred thousands of those delicious silvery whitebait, besides a few hundred species of fresh water fish. In shellfish, 20 turtle, 30,000 oysters, 1,500 lobsters or crabs, 300,000 prawns, shrimps, sardines, and anchovies.

TENDENCY OF DEBT.

The *Presbytery Reporter* remarks upon this question which is of interest to all:

Let us look at the tendency of debt, in its bearing on the debtor himself, and those dependent on him. It is admitted that debt is sometimes very necessary. We will now go further, and say that it is sometimes highly praiseworthy. As examples, two cases may be specified in which debt is to be preferred to the want of the things it may secure. One is debt contracted for an education, which could not be otherwise acquired; the other, debt for the support of a sick or aged parent, or other relative, who must otherwise suffer. But in general, debt is a great and grievous evil to the debtor himself. It destroys a man's independence, harasses his mind, eats up his resources with that ever-gnawing moth, interest-money, damps the spirit of enterprise, and, what is worst and strangest of all, it often prevents the practice of economy just in proportion as the necessity for economy increases. A man who owes a thousand dollars will buy many things which another who has as much at interest—or even himself if he should ever be worth so much—will feel that he cannot at all afford. How many families there are whose head is involved in debt, whose members seem to have conspired to make the debt inextinguishable! The wives and daughters appear in new dresses, new bonnets, new shawls. They surround themselves with new furniture, and perhaps even persuade to the building of new houses and the giving of expensive parties. No one would suspect that all this was done with other people's money, unless he should by accident become acquainted with the fact, or unless, perchance, he should come to them with a subscription paper, which sometimes brings such persons to their bearings. When females, whose husbands or fathers are known to be in debt, are found sporting rich silks and other expensive articles of superfluous extravagance, there are those who see among the flowers which adorn their heads numerous little serpents, whose shining eyes look out expectant, as if waiting for their time; there are those who hear in the rustling of such silks the hissing of other larger serpents, yet more venomous and destructive. There is reason to suppose that much of the sin of this kind which is committed is to be ascribed to ignorance and thoughtlessness—that if the frivolous creatures who are guilty of this folly understood the real circumstances of those relatives whom they tease for indulgence in unreasonable gratifications—that if they saw clearly the risks which would be run by those relatives, and even by themselves, in the debts accumulated by their extravagance—and the dreadful consequences which might easily come upon them—they would shrink from the exposure, and give up gratifications that could be purchased only at such a price.

HOW GOLD LACE IS MADE.

In an interesting description of the method of manufacturing gold lace, an exchange pointedly says that gold lace is *not* gold lace; it does not deserve this title, for the gold is applied as a surface to silver. It is not even silver lace, for the silver is applied to a foundation of silk. The silken threads for making this material are wound around with gold wire so thickly as to conceal the silk. The making of this gold wire is one of the most singular mechanical operations imaginable. In the first place, the refiner prepares a solid rod of silver about an inch in thickness; he heats this rod, applies upon the surface a coating of gold leaf, burnishes this down, applies another coating, burnishes this down, and so on, until the gold is about one-hundredth part the thickness of the silver. Then the rod is subjected to a train of processes which brings it down to the state of fine wire, and it is passed through holes in a steel plate, lessened step by step in diameter. The gold never deserts the silver, but adheres closely to it, and shares all its mutations. It is one-hundredth part the thickness of the silver at the beginning, and it maintains the same ratio to the end. As to the thinness to which the gold-coated rod of silver can be brought, the limit depends on the delicacy of human skill; but the most remarkable example ever known was brought forward by Dr. Wollaston. This was an example of solid gold wire, entirely free from silver. He procured a small rod of silver, bored a hole

through it from end to end, and inserted in this hole the smallest gold wire he could procure. He subjected the silver to the usual wire-drawing process, until he had brought it to the finest attainable state, being, in fact, a silver wire as fine as a hair, with a gold wire in its center. To isolate this gold wire, he subjected it to warm nitrous acid, by which the silver was dissolved, leaving a gold wire one-thirty-thousandth of an inch in thickness—perhaps the thinnest round wire that the hand of man ever produced. But this wire, though beyond all comparison finer than any employed in manufactures, does not approach in thinness the fine film of gold on the surface of silver in gold lace. It has been calculated that the gold on the finest silver wire for gold lace is not more than one-third of one-millionth of an inch in thickness; that is, not above one-tenth the thickness of ordinary gold leaf.

AMERICAN EXTRAVAGANCE.

The Liverpool *Albion* copied some remarks we made on this subject some months ago, in reviewing the work of Mr. Robertson on the United States. We find the following in the same journal, transferred from the New York *Commercial List*:—

The institutions of the present century, with their tendencies of an almost equal distribution of comforts and luxuries amongst numerous classes, have also, for obvious reasons, created a desire to grow suddenly rich, and without adequate effort. This has been particularly apparent since the development of the gold mines of California and Australia. To this desire it is owing that men occasionally endeavor to establish a fictitious credit by an ostentatious display of sham prosperity; and to this it is also owing that a thousand airy schemes of speculation, without the remotest prospect of remunerative returns for the investment made in them, are got up to dupe the unwary. And, worse even than the tricks and stratagems and devices of those who strive to obtain wealth without being willing to undergo the drudgery of honest accumulation, are the extravagances which the evil examples of some, and the imitative dispositions of many, have introduced into modern habits of living. Houses over-stocked with glittering furniture—tables groaning under expensive brands—persons clad in garments of unparalleled richness, are indications of a social demoralization which requires to be corrected by a wholesome public sentiment, and which may possibly prevail as we grow older and wiser; but of which, we must confess, there is not much indication at present.

BRITISH FISHERIES.

The official return respecting British fisheries for the year ending the 31st December, 1857, shows that the total quantity of herrings cured during the period was 580,813¾ barrels; the total quantity branded, 218,992; and the total quantity exported, 367,160, being a decrease upon the preceding year of 29,174¾ barrels in the quantity cured, of 4.289 in the quantity branded, but an increase of 19,549¼ barrels in the quantity exported. The quantity of herrings caught, but not cured, amounted to 86,121 barrels, showing a decrease upon the preceding year of 21,564 barrels. These two quantities give the total produce of the herring fisheries for 1857 at 666,934¾ barrels, presenting a decrease upon the preceding year of 50,738¾ barrels or crans. The returns in the cod and ling department show for the past year that 104,668¼ cwt. were cured-dried, and 4,393¼ barrels cured in pickle, and the total quantity exported was 34,310 cwt., being a decrease in 1857, as compared with 1856, of 5,836¼ cwt. in the quantity cured-dried, and 2,248¼ barrels in the quantity cured in pickle, but an increase of 4,680¼ cwt. in the total quantity exported. The number of boats employed during the year was 12,377, manned by 43,014 fishermen and boys, and with those engaged in the shore curing and other departments of the fisheries, the total number of persons employed was 93,596.

THE BOOK TRADE.

1.—*Cyclopedia of Commerce and Commercial Navigation.* Edited by J. SMITH HOMANS, editor of "Bankers' Magazine." With maps and engravings. Royal 8vo., pp. 2,000. New York: Harper & Brothers.

While we congratulate the public on the possession of a work which goes so far towards supplying a great want in a condensed form for ready reference, we are nevertheless disappointed to find that very much of the important matter by no means comes down to the most recent dates. Thus, under the head of Banks, the most recent dates of the official reports of the banks of the United States are for December, 1856, although the reports up to January, 1858, have long been laid officially before the public, and that period covers a most interesting era. Of the several States, few of the reports are brought down later than 1855. The Bank of France is brought down only to September, 1856, although the same returns are published monthly, and are before the public to July, 1858. The banks of Germany are brought down only to 1855, and the general returns of the Bank of England only to 1853. Under the general heads the same omissions are visible. The trade of France is brought down only to 1853, except whatever figures are derived from the United States reports, and they are only to 1855. The trade of Great Britain, so accessible down to the last month, is given no later than 1853, though, as we approach the close of the work, the dates, especially in regard to the United States trade, are brought down to the latest official publication. In some respects, too, there is a lack of uniformity in the figures—that is, they fail to prove. Thus, on page 1771, under the head of Sugar, the consumption of which in the United States in 1857 is given at 435,000 tons, on page 1774, the consumption of the same commodity in the United States for 1857 is set down at 280,765 tons—a difference of 156,000 tons. These are doubtless errors which unavoidably creep into so extensive a work, necessarily one of compilation from authors who do not always agree. Still it can be looked upon as a valuable work, containing much that it is important the merchant should know in relation to prices, quantities exported and imported, production here and elsewhere, and should have a place in every American merchant's library, as a representative of American trade.

2.—*Elements of Inorganic Chemistry*, including the Applications of the Science in the Arts. By THOMAS GRAHAM, F. R. S. L. & E., late Professor of Chemistry in University College, London. Edited by HENRY WATTS, B. A., F. C. S., and ROBERT BRIDGES, M. D. Second American edition. 8vo., pp. 852. Philadelphia: Blanchard & Lea.

This new American edition of Graham's Inorganic Chemistry, is from a second English edition recently published. Since the appearance of the first edition of this work in 1843, the subjects of which it treats have greatly increased in development and importance, so that nearly four hundred pages of new and important matter have been added, rendering it the most complete, while it is at the same time the most recent, work on inorganic chemistry. It contains the fullest investigations of heat, light, and electricity; of diffusion of liquors, chemical affinity of metallic and non-metallic elements. The indefatigable industry of Professor Graham, in investigating the new discoveries and appliances of inorganic chemistry for the last fifteen years, has enabled him to give clear and complete explanation of the relations of inorganic chemistry to science and art, with a utility to the student not to be found in any other work. Not only the knowledge, but the uses of chemistry, are here displayed with remarkable clearness. The additions by the American editors are chiefly such as to give a corresponding progress to the latest advancements in the science of chemistry—the first part of the English edition, of which this is the republication, having been published in parts several years ago. The pure white paper and clear type in which the book is got up, show a worthy appreciation of the subject by the publishers.

3.—*Two Millions;* an Epic Poem. By Wm. Allen Butler, author of "Nothing to Wear." New York: D. Appleton & Co.

The popularity which attended the advent of Mr. Butler's poem "Nothing to Wear," as well as the dispute which arose as to who was its author, has doubtless given rise to this last production. It is written much in the same strain, and "drawn at a venture" with the same carelessness to praise or censure which seems so readily to attach itself to the pen of the author, and may be considered a slap at the follies of the times. Like the other, it is both satirical and quizzical, containing many pointed hits, which go to prove Mr. Butler both a poet and a wit. As a sample, we give below Satan's rebuke to sin, in a rhetorical effusion, in a poetical strain, of poor old Firkin's lawyer, in his friendly admonitions to the contending heirs to that old gentleman's princely estate:—

"But if you find, between conflicting views,
And jarring claims, too great disparity,
Give the whole fortune (which they won't refuse)
To some deserving city charity;
Or if this fails, then, as a last resort,
Stay all proceedings, cut the matter short,
Fly from the law and juries and reporters,
Change the two millions into solid metal,
And sink the bullion in the deepest waters
This side the Narrows—rather than not settle!
Far better thus than make your names a handle
For public ridicule and private scandal;
Far better thus than drag through all the courts,
To point opinions and to swell reports;
To make the rich man shudder as he sees
How swift a curse, what dire calamities,
May wait upon the wealthiest, for whom—
Equal with beggars in the final doom—
Death is appointed, with its unknown ills,
And after death the probate of their wills;
The ruinous vices, or the endless hate,
Too oft distributed with their estate,
Or the hot haste which, in one generation,
Squanders a lifetime's slow accumulation.
To make the poor man, in his worst despair,
Thank God, at least, he's not a Millionaire!
To lie—scarce coffined in his marble vault,
Scarce hushed the echo of the funeral prayers,
Ere, overhead, begins the fierce assault,
And deadly struggle of contending heirs;
Ruthless of memory or of honest fame;
Reckless of virtues, earlier or later;
And sinking even the once honored name,
In that post-mortem title—the Testator."

4.—*The Laws of Health*, in relation to Mind and Body. A Series of Letters from an old Practitioner to a Patient. By Lionel John Beale, M. R. C. S. Royal 12mo., pp. 295. Philadelphia: Blanchard & Lea.

Among the many works on health addressed to the public, this is, as far as it goes, the best. "There are many diseases which may be altogether prevented by attention to the laws which govern animal life; and of those disorders dependent on some affectious property in the air, or other mysterious causes, we are the better able to resist the influence, the more we are guided by the laws of health." The principles of this extract from the preface are lucidly evolved in the "Laws of Health," by Dr. Beale, and the book cannot fail to be of vital interest to all who will attentively read it.

5.—*New American Cyclopedia*; a Popular Dictionary of General Knowledge. Edited by GEORGE RIPLEY and CHARLES A. DANA. Volume III. Royal 8vo., pp. 768.

The third volume of this stupendous work has made its appearance with commendable promptness. It is now nearly thirty years since a complete cyclopedia was published in this country. Since that time we have doubled both our population and our area; peopled the gold regions; discovered a new continent; gone through a war; buried our third generation of great statesmen, in Clay, Calhoun, Webster, and Benton; built new cities, like Chicago; all our railways and ocean steamers; invented the photograph, the electric telegraph, and the lightning press; introduced cheap postage, steel pens, gummed envelops, lucifer matches, omnibuses, chloroform, &c., &c. These matters are all dealt with in these volumes in the fullest possible manner, for a work of such magnitude, and with that comprehensiveness and abillty which the editor's names were a sure guaranty in the outset. In volume III. will be found numerous articles interesting to every professson in life—lawyers, farmers, mechanics, merchants, military men, clergymen, and physicians: and among the contributors the names of Edward Everett, Professor J. H. Holcombe, George Ticknor, Charles H. Hazewell, and many others of equal authority.

6.—*Moveable Circle for finding Coins, Weights, and Measures*, of all Commermercial Places in the World, compared with the standard of the United States. By L. SIMONSON. Baltimore, 1858.

This ingenious method of arriving at the relative value of coins, weights, and measures of each commercial place in the world, has only to be tested to satisfy one of its usefulness and adaptability. It is a lithograph on pasteboard, and consists of a plain and well devised circle, traversed by an inner one, and in order to ascertain the comparative relations of weights, measures, and currency between any two commercial places, you have but to turn the name of the given place on the moveable inner circle until it rests directly opposite that of the country or place to be compared on the outer circle, and you have the result in 100 pounds, 100 bushels, 100 dollars, &c., which can be readily reduced to any fractional part sought for. It is an ingenious and complete thing in its way, and to the merchant, banker, or statistician, who so frequently have balances to adjust, will be found a ready reckoner.

7.—*Tilden & Company's Book of Formulæ*, for making Tinctures, Infusions, Syrups, Wines, Mixtures, Pills, &c., from the Fluid and Solid Extracts, prepared at the Laboratory of Tilden & Co. 8vo., pp. 162. New Lebanon, N. Y., and 98 John-street, New York city.

This book is chiefly intended for apothecaries, but it is of equal benefit to all who would become acquainted with the indigenous and naturalized medicinal plants of our country, of which it contains a better digest than any other ever before printed. And besides this, it comprehends a condensed account of such plants of foreign growth as are known to be of greatest utility in medicine. To the history of botanic medicines, here briefly given, is added Messrs. Tilden & Co.'s list of condensed preparations, and the *formulæ* for their adaptation to standard dispensatories. The publishers promise a continuation of *formulæ* in their *Journal of Materia Medica and Pharmaceutic Formulary*, in such a form that they can be cut out and preserved with the others in the Book of Formulæ. We cannot forbear to state, in connection with this notice, that there is much need of a special work on our native medicinal plants, and from the acknowledged reputation of Messrs. Tilden & Co., and from what they have already done towards developing the medical resources of the country, a more extended work from them on this subject would fill a long unwanted vacuum.

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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

OCTOBER, 1858.

Art. I.—MIGRATION FROM EUROPE TO UNITED STATES.

CHANGED CONDITION TO LABOR—PROGRESS OF EMANCIPATION—DECLINE OF SLAVERY—EXODUS OF WHITE LABOR—PEACE OF 1815—ITS EFFECTS—VALLEY OF THE RHINE—CARAVANS—NUMBER OF EMIGRANTS—DISTINCTION BETWEEN GERMAN AND BRITISH MIGRATION—EARLY TRADE OF THE UNITED STATES WITH FRANCE—TWO FREIGHTS ON PRODUCE—CHANGE OF MODELS—TRADE OF HAVRE—TRANSIT ACROSS FRANCE—GOVERNMENT MEASURES—RIVALRY OF PORTS—BREMEN REGULATIONS—LAW OF PASSENGER SHIPS—PASSENGERS FROM FOUR PORTS—TOTAL GERMAN MIGRATION—COST OF PASSAGE—DESTINATION OF EMIGRANTS—CAUSES OF MIGRATION—GOVERNMENT RESTRAINTS—DUCHY OF BADEN—COST OF MIGRATION—CASH CARRIED OUT—TOTAL MONEY MEANS—NORTH OF EUROPE—OTHER COUNTRIES OF EUROPE—IRELAND—CAUSES OF IRISH DISTRESS—MEANS OF MIGRATION—REDUCTION OF POPULATION—REMITTANCES OF EMIGRANTS—MEASURES OF THE ENGLISH GOVERNMENT—ACT OF 1847—POWERS OF THE COMMISSION—ANNUAL MIGRATION FROM GREAT BRITAIN.

A PROMINENT feature of the present century has been the changed condition of a large portion of the human race in respect to labor. Half a century since, slave colonial labor was considered the great source of wealth to most European nations, while white labor was employed in war making, or in peaceful pursuits restrained by mutual prohibition. Since the establishment of peace in 1815, black slavery in the colonies, and serfdom in Europe, have gradually been abolished. The serfs of Germany were early relieved from bondage, and in 1835 the slaves of the British islands were emancipated. In 1846, Sweden and Denmark purchased the freedom of their blacks. In 1847, 60,000 serfs in Walachia were enlarged. In March of the same year slavery was abolished in Egypt, and Tunis followed the example. In 1848, the French provincial government emancipated the blacks in the colonies; Holland has put a period to slavery in Surinam; and the Brazils have recently suppressed the trade. These movements have produced great changes in colonial productions, but the great exodus of Europeans to the New World has transferred wealth and changed the currents of trade to an immense extent.

On the establishment of peace in 1815, the attention of the people of

Europe was turned towards that new world of which they had heard, and which was as free from political oppression as from the devastations of war and military exactions. The people of the Rhine Valley, which had so much suffered, were the foremost in the movement, and considerable caravans proceeded to the seaports to take passage for America. This movement gradually increased, and was simultaneous with a similar outward current from the British Islands to the same destination. From 2,000 to 3,000 per annum in the early years of the century, the combined movement was estimated to have reached 600,000 souls in 1853, the year of the largest movement. In order to gather some distinct idea of the vast operation, it is necessary to consider separately that which regards the European continent and that of the British Islands. The former has again some distinct features, since the migration from the Rhine Valley is different from the less numerous passengers from other European countries.

Prior to the development of this movement, the United States trade with Europe suffered some inconveniences, since the raw products of this country going abroad, gave bulky freights to a large tonnage, which had no adequate return freights, and, as a consequence, the produce was charged two freights, to make the voyage pay. The elegant and taper models of the American ships, which had excited such admiration during the war, were changed to more burdensome shapes, that stowed more cotton going out, and left room for better passenger accommodation on the return. This change of models to meet the wants of a new trade, marks the facile character of American enterprise; and it was renewed on the occasion of the discovery of the gold countries, which called for the fleet qualities of the "clipper ships," when models were again changed. The port of Havre, in France, was that which most favored the emigrants. The largest number of cotton ships went thither, and these afforded the best return accommodations for the emigrants. Accordingly, from 1818 to 1836, the number of Germans who crossed France to take passage ranged from 18,000 to 20,000 per annum. A large portion of these were poor people, driven from home by misery, and all sought to cheapen the cost of passage to the utmost. The French government of the restoration was soon alarmed, and sought to suppress what it supposed a tide of foreign pauperism through its territory. It ordered, accordingly, that no immigrant should be allowed to cross France without having previously paid to the agent of the vessel the price of a passage to New York or New Orleans. He must also have justified in the possession of $150 for each individual over 18 years, and in half the sum for those under that age, and must also have had his passport countersigned by the French ambassador at Frankfort. The effect of these regulations was to turn the current from the direction of Havre down the Rhine, to Antwerp, Bremen, and Hamburg. Since then the current of migration has been divided, and a great rivalry for the possession of the business has sprung up between the four ports named. These passengers to be obtained at these ports have attracted shipping, and, reciprocally, the facility of passage has attracted passengers. The German ports have greatly increased their trade, while Havre has never recovered its passenger *prestige*, although it procured the modification of the obnoxious regulation which had so greatly injured it.

The authorities at Bremen were the first to avail themselves of the

errors of the French government. In 1849, a law subjected emigrant ships to regulation. The height between decks, the thickness of plank, the room for each passenger, the quantity and quality of food allowed, were all prescribed, and obligations are imposed upon the vessels to insure, in case of shipwreck, the transportation of the passengers to the place of destination. The passengers to be admitted on board only when the vessel is quite ready, and, to facilitate the sojourn of the emigrants on land, an immense building, capable of lodging 2,000 persons at once, was constructed at Bremerhaven, with every convenience, including hospital. The charge is 15 cents per day, lodging and board. For 36 cents per day they get lodging on a good bed, coffee with milk and sugar, white bread for breakfast, soup, meat, and vegetables at noon, and a suitable supper. All runners, and all interference with emigrants, is strictly forbidden, and every means taken to make Bremen attractive to emigrants, even to gratuitous counsel in case of dispute with the vessels or agents, or other parties. By these means Bremen has obtained a large share of the trade. Hamburg has not made the same efforts, although lately societies have been formed for the protection of emigrants, and the government has opened an office to furnish the emigrant with proper information, and to protect them against imposition on both sides the water. We may now see the effect of these changes upon the number of emigrants that left each port in several years:—

Years.	Havre.	Antwerp.	Bremen.	Hamburg.	Total.
1846.....	32,381	4,434	32,372	4,857	74,044
1847.....	59,474	14,717	33,682	7,628	115,501
1852..	72,825	14,369	58,551	21,916	167,161
1857.....	24,825	13,150	49,449	31,556	118,990

The emigration movement seems to change from year to year. The total from Germany has been as follows for the last ten years:—

1848..... ...	81,895	1853.....	162,568
1849.....	89,102	1854.....	203,537
1850.....	82,404	1855.....	84,761
1851.....	112,547	1856.....	88,988
1852.....	162,301	1857.....	118,990
Total			1,187,088
Average per annum.....			118,708

About a third of the Germans embark in the German ports. The cost of transit from the Rhine Valley is about the same to Havre or to the German ports, where they find more facility from community of language, and where they go on board of government vessels. In Havre they take American vessels, and on going aboard they regard the new country in some sort already attained. The transit over France is further greatly facilitated by the agents of the emigrant ships. It is also the case that the American ships generally are larger, and afford more space per head to the passengers than do the German vessels. The destination of nearly all the passengers from all the ports is for the United States, and at New York they mostly disembark, only in a majority of cases to continue their route to the West, their final homes.

In the reports of the different societies for the protection of the emigrants, many attempts are made to explain the causes of the great national movement. The German, say they, is a persevering worker; he wishes to ameliorate his condition. He is always to carry his labor to

the best market, and certain professions have been exercised by Germany in all countries since a long time. They also seek in historical origins the causes of the movement, in ascribing it to Anglo-Saxon affinities, of which the race seems to claim half the world henceforth as its domain. No doubt these are among the causes, but there are others. The principal reason why the United States are selected for future homes, is evidently the hope of enjoying civil, political, and religious liberty; and it has been since the spread of communism in Germany that the movement has increased, and those views are entertained to a considerable extent among the German emigrants in the United States. They exercise their liberties here to their fullest extent. If they seek freedom from military service, they are ever ready to bear a just proportion of the public expense. They find here the freedom of individual employment, not interfered with by trade corporations. They are also able freely to dispose of the fruits of that labor. Finally, they seek and obtain here that which their native country denies them.

It was not to be expected but that so important a movement should attract the attention of those governments whose losses by it in citizens and capital were the most conspicuous, and a number of attempts have been made to arrest it. There were attempts made to found agricultural colonies, particularly in Prussia, where the government offered lands in the Grand Duchy of Posen, and emissaries were sent to the borders of the Rhine, to induce emigrants to accept the terms, which were too onerous to be attractive to people who had choice of land and perfect liberty before them. In Bavaria, a monopoly of the right to contract with emigrants for a passage over France is given to two houses only. This is evaded by clandestine migration. In the Netherlands, Baden, and the two Hesses, the rulers are less rigorous, but passports are there not given until every means short of force has been used to deter the emigrant from his purpose, and finally the emigrant is required to renounce all rights of citizenship and nationality. There are other measures for the protection of the emigrant, for which purpose societies receive great encouragement, and when destitution is the cause of the departure, the local governments assist by money. In this case, however, a strict renunciation of all future claim to aid is required. It is sorrowful to contemplate to what extent destitution operates as a cause of departure along the fruitful valley of the Rhine. After having been oppressed by feudal tyranny, it has, in modern times, been the theater of almost continual wars, until it recalls almost the misery of Ireland. In the Duchy of Baden the pay of a day's labor is 36 kreutzers, (28 cents,) which enables the worker to live when the crops are abundant, but is quite insufficient when the failure of the harvests causes food to rise. This was the case in 1846, followed by the potato disease and the insurrection of 1847. These causes gave a great impetus to migration. Out of a population of 1,336,943 souls, 14,400 emigrated in 1852. When the emigrants have the means of migrating, bands of families congregate from different points and proceed together; when they are aided by the government, all those belonging to one canton go together. The political exiles are few, but among them are men of wealth, who have formed large establishments in America.

The expense of migration from the old to the new home is computed at $100 per head; but the sums transported are much more important. In 1854, it was ascertained at Bremen that 8,908 individuals from the

Palatinate carried 2,024,000 florins. Other returns show that the average is over $100 per head in excess of the cost of voyage. Germany has, therefore, sent away in ten years 1,187,088 people, and $160,000,000. It is the same as if she had armed, equipped, furnished, and lost an army of 118,000 every year for ten years.

The people of the North of Europe do not migrate to a great extent. A few go to Canada, but the movement is not important. Holland sends away some 1,000 to 1,200 per annum, and the cause is mostly a religious one, and rather singularly Mormonism has lately found recruits there. The Spanish and Italians do not migrate in any great numbers, except moderately to the South American countries. The attachment of the French to their native soil is far too marked to permit migration to any considerable extent, and Algiers attracts most of the enterprising.

The migration from Ireland has been the most important of all. In forty-three years the number which left Great Britain was 4,683,394 souls. Of these, 1,220,102 left in the last five years; 1,533,176 in the previous five years; making 2,753,278 in the last ten years—an average of 275,327 per annum. The original incomplete conquest of Ireland, followed by the religious persecution from Henry VIII. to George III., the economical condition of Ireland constantly deteriorated, and misery made rapid progress. The landholders became involved in debt, and the subdivisions of the land multiplied as fast as the people, which was in a proportion as great as of the pigs, with which they lived in common. The people had come to depend mostly upon the potato for food, and the appearance of the rot in that crop put the climax to the institution. The unconquered Celts chose to abandon the country they had so long held, and the means were furnished to a great extent from the earnings of those who had gone before to America. The movement towards England had become so great in 1840, that the city of Liverpool paid the passages of the Irish back to their island, and the same steamer brought back the same individuals, who thus derived a support during the passage. The current increased by the clearing of the estates, and when the famine broke out in 1847, the efforts of all parties interested were redoubled to free that country from the starving poor. The sums sent from the United States, by the laboring friends of the emigrant, were reported officially at $2,300,000 in 1848; $2,700,000 in 1849; $4,964,000 in 1850; $5,000,000 in 1851; $7,200,000 in 1852; $7,350,000 in 1853; $8,310,000 in 1854; and the amount for 1857 was $2,500,000; and these do not comprise the whole. The census of 1851 disclosed the fact that famine and migration had reduced the population from 8,100,000, in 1840, to 6,400,000, in 1851. With the discoveries of gold in California and Australia, came a new incentive to migration, but the diminution of numbers at home gradually produced a check. The supply of laborers was evidently diminished, and the Russian war demonstrated the scarcity of men. The English government aroused itself to action, and its first great measure was to throw the support of the poor upon the parishes; and as the tax for that purpose became out of proportion to the revenues of the encumbered land, a sale of encumbered estates was authorized. These measures have been very successful for the improvement of the condition of the country; capital has entered into the cultivation of Ireland; but, at the same time, the desire to purge the land by emigration of an encumbering population has continued to act. When the gold dis-

coveries of Australia gave a new impulse to the movement, the act of 27th November, 1847, which had erected the Commission of Emigration, was amended by conferring new powers for the sale of lands belonging to the crown in the colonies, and for the surveillance of the emigration of poor families for the colonies. The act also lays down minute regulations for the passenger ships, which are subjected to the control of the Commission under the law. The space allowed each passenger for a voyage to America is twelve feet, and when the tropics are crossed fifteen feet. The regulations in relation to provisions are minute and satisfactory. To give effect to the powers of the Commission, its funds are drawn from the sale of the colonial lands. It derived in one year from the province of Victoria $3,500,000. These funds enable it to aid the emigrants by gratuitous passages, where the means are otherwise wanting. This Commission is supported by emigrant societies, not only in the United States but in Australia. The Commissioners are enabled to keep the public informed of the state of the labor market, and the peculiar advantages offered to the adventurer. The migration of the British Islands has been as follows:—

EMIGRATION FROM GREAT BRITAIN.

Years.	To North American colonies.	To United States.	To Australian colonies and New Zealand.	To all other places.	Total.
1825..... ...	8,741	5,551	485	114	14,891
1826.....	12,818	7,068	903	116	20,900
1827.....	12,648	14,526	715	114	28,003
1828.....	12,084	12,817	1,056	135	26,092
1829.....	13,307	15,678	2,016	197	31,198
1830.....	30,574	24,887	1,242	204	56,907
1831.....	58,067	23,418	1,561	114	83,160
1832.....	66,339	32,872	3,733	196	103,140
1833.....	28,808	29,109	4,093	517	62,527
1834.....	40,060	33,074	2,800	288	76,222
1835.....	15,573	26,720	1,860	325	44,478
1836.....	34,226	37,774	3,124	293	75,417
1837.....	29,884	36,770	5,054	326	72,034
1838.....	4,577	14,332	14,021	292	33,222
1839.....	12,658	33,536	15,786	227	62,207
1840.....	32,293	40,642	15,860	1,953	90,748
1841.....	38,164	45,017	32,625	2,786	118,592
1842.....	54,123	63,852	8,534	1,835	128,344
1843.....	23,518	28,335	3,478	1,881	57,212
1844.....	22,924	43,660	2,229	1,873	70,686
1845.....	31,803	58,536	830	2,330	93,501
1846.....	43,439	82,239	2,347	1,826	129,851
1847.....	109,680	142,154	4,949	1,487	258,270
1848.....	31,065	188,233	23,904	4,887	248,089
1849.....	41,367	219,450	32,191	6,490	299,498
1850.....	32,961	223,078	16,037	8,773	280,849
1851.....	42 605	267,357	21,532	4,472	333,966
1852.....	32,873	244,261	87,881	3,749	368,764
1853.....	34,522	230,885	61,401	3,129	329,937
1854..	43,751	193,065	83,237	3,366	323,429
1855.....	17,966	103,414	52,309	3,115	176,807
1856.....	14,111	127,000	33,000	2,443	176,554
1857.....	21,001	126,905	61,248	3,721	212,875
Total		2,786,212			4,508,296

The migration from Germany and from Great Britain for the last twelve years compare as follows:—

Years.	Germany.	G. Britain.	Years.	Germany.	G. Britain.
1846	74,044	129,851	1852	162,801	368,764
1847.....	115,501	258,270	1853.....	162,568	329,937
1848.....	81,891	248,089	1854.....	203,537	323,929
1849.....	89,102	299,498	1855.....	84,761	176,801
1850.....	82,404	280,849	1856.....	88,983	176,554
1851..... ...	112,507	335,966	1857.....	118,990	212,874
Total.....	555,449	1,552,523	Total.....	822,007	1,588,860

The proportion of Germans who migrated in the first six years was about one-third of those from Great Britain, and this has risen to one-half in the last six years. We may now take from the official annual tables the whole number of immigrants that have arrived in the United States from each country in the last thirty-seven years:—

NUMBER OF ALIENS ARRIVED IN THE UNITED STATES FROM EACH COUNTRY.

	1820 to 1835.	1836 to 1845.	1846 to 1850.	1851 to 1855.	Total, 35 years.	1856.	1857.
England.....	21,595	10,327	23,618	151,952	207,492	25,904	.....
Ireland.....	50,304	29,430	138,892	529,304	747,930	54,349	.....
Scotland	5,658	680	3,221	25,000	34,559	5,297	.....
Wales	347	116	1,154	3,166	4,782	1,126	.....
U. Kingdom ..	108,362	405,481	613,597	221,242	1,348,682	14,331	.....
Great Britain..	186,266	446,033	780,482	930,664	2,343,445	101,207	111,836
France	26,638	51,488	53,588	57,020	188,734	7,246	2,397
Spain	3,565	2,232	1,153	4,301	11,251	.....	.....
Portugal	891	202	466	490	2,049	.....	.....
Belgium.....	33	1,008	4,083	1,867	6,991	1,982	.....
Prussia.....	433	13,321	2,771	19,450	35,995	7,221	.....
Germany.....	52,868	198,729	326,667	627,823	1,206,087	68,308	91,781
Holland.....	1,757	2,631	6,402	6,793	17,583	1,395	.....
Denmark.....	467	959	365	1,268	3,059	.....	.....
Swed. & Norw.	509	5,521	9,168	14,253	29,141	1,157	.....
Poland.....	164	310	21	823	1,318	.....	.....
Russia.....	325	263	329	21	938	.....	.....
Turkey	28	31	33	36	123	.....	.. ..
Switzerland ..	6,020	5,155	1,547	18,349	31,071	1,780	.....
Greece	29	50	6	23	108	.....	.....
Italy, Malta,&c.	2,339	1,136	1,200	3,670	8,345	.....	.....
Europe	2	48	3	473	526	.....	.....
Brit. America..	6,677	20,735	30,421	33,866	91,699	6,493	.....
South America.	1,004	918	3,055	463	5,440	.....	.....
Cent. America.	147	38	334	121	640	.....	.....
Mexico	9,033	4,232	1,423	1,281	15,969	.....	.....
West Indies ..	9,528	12,115	8,184	5,490	35,317	1,337	.....
Asia	46	50	49	16,693	16,838	4,733	.....
Africa & Aust'a	546	174	326	1,074	2,120	.....	.....
All other.....	....	....	....	....	....	18,609	47,633
Total.....	309,330	767,359	1,232,076	1,746,302	4,055,087	200,436	271,816

This number is very large, and it is curious to test the accuracy by the numbers reported by the census of the United States in 1850, as those living in the United States and born elsewhere. To do this, we take from the above table the numbers reported to have arrived up to 1850, and compare them with the numbers reported here by census, as follows:

	Arrived to 1850.	In U. States per census, 1850.		Arrived to 1850.	In U. States per census, 1850.
Ireland.....	218,626	961,719	Switzerland.....	12,722	13,858
England	55,510	278,675	Holland	10,790	9,848
Scotland.....	9,559	70,550	Belgium.....	5,124	1,313
Wales.....	1,616	29,868	Portugal..... .	1,559	1,274
United Kingdom.	1,127,440	.....	Spain	6,950	3,113
			Swed'n & Norw'y	14,888	16,237
Total.....	1,412,751	1,340,312	Mexico	14,688	13,317
France.....	131,714	54,069			
Germany	578,264	578,225	Total.....	2,309,785	2,240,535
Prussia.....	16,545	10,549			

These tables give the greatest degree of accuracy, corroborating each other in a marked manner, and speaking well for the longevity of the immigrants; since, in the aggregate of 2,309,785 persons who arrived from 1820 to 1850, 2,240,535 were living in the latter year, showing a loss of but 69,250 persons. In the returns for the United Kingdom the larger proportion of the arrivals are not designated as to which kingdom they belong, but the census analyzes the return with remarkable precision as to the aggregate. The number of persons arrived from France includes many who were not born there, and it is probable that more French than of any other nation have returned home.

Of all the foreigners in the United States, more than one-half are in New York and Pennsylvania. Three-fourths of the remainder are in Massachusetts, Ohio, Illinois, and Wisconsin. One-third of all the Irish are in New York; another third is in Massachusetts and Pennsylvania, and the remainder distributed through the Union. One-third of the English are also in New York. The majority of the Germans are in the Western States—one-fifth of the whole number being in Ohio. It is to be observed, however, that since these figures for the census of 1850, the numbers who have arrived have nearly doubled, and it is probable that they have settled in nearly the same ratio. The number of Irish in New York in 1855 was 469,753, an increase of 126,000 in five years.

In the last two years there has been some check to the movement, but it is not to be supposed but that, with the return of prosperity in the United States, the stream will be renewed with greater vigor, transferring men and wealth to the United States in a larger ratio than ever.

Art. II.—COMMERCIAL COLLEGES—THEIR NATURE AND OBJECT.

"Commerce is King," very truthfully remarks Thomas Carlyle, and this "*ipse dixit*" will apply much more pertinently now than ever before. To it England owes all that she confessedly possesses—wealth, power, dominion, and influence. "There needs no ghost come from the grave" to presage for us, the lineal descendants of such busy, enterprising, and money-making Saxons, a similar destiny.

The world's history can produce no instance of so young and inexperienced a nation embarking in a commercial career with such hot and eager haste, and pursuing it with such determined, and even engrossing, persistence. The close and steadfast prosecution of our material interests,

which unquestionably stamps our national character, has already rendered us in the world's estimation obnoxious to reproach. We are even at this early day stigmatized as universal "worshipers of the almighty dollar."

"The United States," sneeringly remarks one exalted in the world's regard, "is but one extended counter from Maine to Texas." Granted; and it is the surest guaranty of a prosperous future. We would not have it otherwise. The glaring faults which are now—it may be even offensively—patent to the world, will bring with advancing age their own correction. They are but the accidents of our anomalous conditions, and are engendered by the remarkable combination of circumstances which have thus far environed us; they are but the offspring of the bounding pulse and elastic spirits of an impetuous and exuberant boyhood.

It needs but a hasty survey of our geographical position, as related both to this and the other hemisphere, of the physical conformation of our country, with its varied climates, its extended seaboard, its expansive lakes, broad-rolling rivers, and exhaustless mineral and agricultural wealth, to establish beyond peradventure the "manifest destiny" of this Confederacy, as well as the character of the people who are to rule it. Whether the amazing prosperity which is in store for us will prove a blessing or a curse, is the problem to be solved, since it will depend entirely on our education, and the objects of national ambition. A full and continued flush of success may sober or may madden us, and the most obvious safeguard against the latter result is, thorough and judicious popular education.

The more carefully you prepare business men—with whom in great measure the future of the country rests—for the lives they are to pursue, the more you enlarge their views, moderate their desires, rectify their aims, and insure their reasonable success. The dangerous proclivity exhibited by American youth to rush too rashly, and without due preparation, into the varied and hazardous walks of commerce, is one of the crying evils of the day. It has become in most quarters an absolute epidemic. Agriculture, manufactures, and the mechanic arts have been too much and too long neglected. The tendency with us now is to congregate in towns and cities, and to throng the avenues to wealth and honor, which are already overcrowded. This propensity is far from healthful, and leads to wide-spread distress and the most poignant disappointment. Gross ignorance and inexperience are every day yielding terribly bitter and expensive lessons, and most of the lamentable failures which attend American mercantile life, and which careful statisticians have computed equal to over 90 per cent of those who embark in business, are directly attributable to shameful mismanagement and ignorance of business, as well as to an absence of commercial experience and discipline.

A faulty, or rather no, system in bookkeeping has absolutely ruined a larger proportion of our industrious and pains-taking merchants than would generally be credited by those having no access to reliable records. Of slovenly business habits, they neither know what they themselves are doing, nor what those with whom their nearest interests are entrusted may be undoing. The disheartening results arising from causes so palpable demand radical reform. They are a sad, but very significant, commentary on the deficient commercial education of the times, and plead potently for correction.

It may be esteemed a truth, and one which both individual experience and trustworthy statistics will confirm, that there is no royal road to success in business life. There, as in all other departments of industry, the most ample and enduring rewards are to the laborious, the methodical, and the persevering. In legitimate business, luck, which in speculation may serve to do or undo, should never be relied on. It lures but to deceive. Its effects are illusory and not substantial. The cases wherein it has led on to fortune are exceptional ones, and only serve to prove the general rule. The most solid, stable, and firmly-based prosperity is the direct result of fiscal and regular laws, which will no more suffer violence than will those of astronomy. In America there is no law of primogeniture, little entailed property, and fortunes change with our weather, and rise and fall with our streams. Here, more than anywhere else on earth, experience would *seem* to give the lie to regular system, to logical sequence, and ploding method; but observe more closely, penetrate more deeply, and take a wider scope of men and things, and our assertion stands confessed.

The obvious want of the age and the country is a more careful and efficient system, by which the youthful aspirants for commercial honor and reputation may be more suitably prepared to enter the crowded arena of business, where so many hazards and vicissitudes beset them, and where they must encounter sharp competition, shrewd rivals, and experienced opposition. They must acquire a thorough acquaintance with the tools they are to employ before they can carve out for themselves fortunes. The race is not always to the swift, nor the battle to the strong, and to succeed in business there needs more than mere desire and industry. Resolution, knowledge, prudence, experience, calculation, and regular method are all required.

As a most powerful means to these ends, we know nothing at all comparable to commercial colleges. They are peculiar institutions, which have sprung but lately into vigorous life in response to a general and widely-felt want. They are the realization of a notable aspect in popular education, and are growing daily in the public regard. No matter, however, how perfect and efficient they may be, they cannot, no more than can schools of law, medicine, and divinity, insure the success of those they prepare for their respective callings. They are only but potent auxiliaries, instrumental in affording that preliminary and elementary knowledge and discipline which enables its possessors to occupy strong vantage ground in the keen and hotly contested struggle for name and place. The learned professors can make no more numerous or more pressing requisitions on their members than do the multiplied and diversified departments of commerce on theirs. Business, as much as professional, men must be taught to reason, reflect, calculate, and discriminate. They require as much varied and useful knowledge; they must become experienced in forms, and in commercial law and usages; they must become accustomed to method, to effective system, and must learn to deal in hard and shrewd common sense.

With commercial schools, as with institutions in kindred departments of knowledge, they are made the more efficient and fruitful in good results, in proportion as they become a speciality. They are now but in their infancy, and have scarcely received that attention and support from the public which their great importance demands, but they are rapidly and

manifestly growing in popular regard and patronage. Their progress towards perfection and augmented utility must be, *pari passu*, with the amount of patronage they receive, and the amount they deserve. Since so large a proportion of our youth select mercantile occupations for a livelihood, that branch of popular education should possess its halls of learning and practice, its cultivated and experienced professors, its regular courses of instruction, and its diplomas and degrees of dignity.

The practical benefits which they can render society will of course depend upon the extent and thoroughness of the education they impart, and that again will depend on the measure of encouragement they obtain from society, and upon the elevation of the popular standard of mercantile education. It has been well said by a distinquished New York accountant, that the young man who acquires a careful education through the medium of a good commercial college, will find himself in possession of a science which he can apply under all possible circumstances, and which will make him as much the superior of him who is obliged, as an apprentice, to pick up his knowledge through a series of years and by costly and varied experience, as the educated engineer is to the ordinary mechanic.

Commerce is King with us also, and the race of accomplished and highly-educated merchants is steadily increasing in this country. Boston, Philadelphia, New York, New Orleans, and other large trade-centers, furnish as noble commercial exemplars as any country can boast. Manchester, Liverpool, and Birmingham give laws to England, and our country must also depend for its prosperity and its statesmanship on its business men. In our Congress and State Legislatures an admixture of purely business men with purely professional men works good to the country, and in furnishing it with those who are hereafter to dignify their various callings, and shed luster on their country, these elementary institutions become valuable adjuvants.

At present, we are to deal with commercial colleges as they now exist, in order to demonstrate what that they might and ought to be, after they have received the fostering care of the public. It would be useless, and indeed impossible, to give a detailed account of all which now flourish in various parts of our country, and all of which resemble each other in their prominent features. Obviously, the course and character of the studies prescribed will vary with the peculiar needs of each locality—thus, those on the seaboard will require branches of preparation entirely diverse from those of inland institutions, and *vice versa*. Those now most prominent are situated at Albany, Buffalo, Cleveland, Chicago, Cincinnati, St. Louis, and Pittsburg. *Ex uno disce omnes*, and a more particular account of the "Iron City Commercial College," of Pittsburg, Pennsylvania, with which we are more intimately acquainted than with any other, and which we believe to be the largest, most flourishing, and most completely organized in the country, will serve to familiarize the reader with the scope and general features of the whole class.

The "Iron City College" is a legally chartered institution, possessing power to graduate its students with regular diplomas. The whole number of students, regular and eclectic, entering during the last two years, rises one thousand, of which there have been in attendance at one and the same time not less than three hundred. The whole number has been gathered from all parts of the country, more than half coming from States

outside of Pennsylvania—Canada, Florida, Texas, Kansas, Georgia, Maine, and, in brief, two-thirds of the States being more or less largely represented. The whole number of professors, tutors, and regular lecturers employed is fourteen, besides, during the year's course, at least forty others selected to deliver addresses to the students on special subjects connected with their pursuits.

The course prescribed embraces almost every branch of commercial elementary knowledge which is necessary to thoroughly prepare a student for any business in which he may desire to embark. The principal studies are bookkeeping, of most approved methods, and as applied in merchandising, banking, railroading, steamboating, and every customary form of business; mathematics, penmanship, plain and ornamental, bank-note engraving, and detecting of counterfeit money, mercantile law forms and usages, languages, etc. Auxiliary to these regular divisions, two daily lectures are delivered—an attendance on which is made obligatory on every student—on various important subjects, as theory and practice of accounts, exchange, foreign and domestic, partnership settlements, application of bookkeeping to the several branches of trade, political economy, financial practice, commercial law, banking and counterfeit detecting, mercantile correspondence, etc., etc.

The actual and effective value of a commercial school education should and will mainly depend on the standard of knowledge and practice resolved on, upon the practical nature and extent of the course of study prescribed, and upon the fidelity and thoroughness with which it is carried out; and herein, we are of opinion, consists a peculiar merit of the college in question. There is, of necessity, for those who can enter but for a limited period, or who desire to prosecute only a particular branch of preparation, an eclectic course, wherein certain studies only, or such as are outside of the regular routine, are pursued. For such, special and individual arrangements are made, but to them the graduation diplomas cannot be awarded. Such as are "regulars," are required not only to prosecute to the end the prescribed course, but to attend on all the lectures, regular and special, and to stand frequent and satisfactory examinations, which are rigidly and critically conducted, not only to test the students general knowledge, but more particularly to measure his ability and readiness to apply in practice what he has gathered by theory. Nothing but the most complete efficiency, regardless of the time expended, can procure the college diploma.

The time required to complete the full course must obviously depend on the student's previous proficiency, on his aptitude and diligence, and on the assiduity with which he prosecutes his studies. Those who are reasonably quick, who come well grounded in the elementary branches of a good English education, and who apply themselves during both day and night sessions, can receive the degree of the institute in from ten to fifteen weeks. There are no vacations; students may enter when they please, and pursue their studies as rapidly as they can, no one being retarded by being allied to a sluggish or an incompetent companion or class. While those who possess the leisure or the inclination to remain longer than the period usually found sufficient, in order the better to perfect themselves, or to enlarge their practical knowledge, are encouraged to do so; those likewise, who are found unfitted to receive their degree, *must* do so. It is manifestly as much the interest, as it should be the desire, of a mercan-

tile college to have young men abide with them until they graduate with such honor as may prove them a credit to their *Alma Mater*.

There is one desirable feature of the "Iron City College"—and one that we believe peculiar to it, which we must not pass unnoticed—it makes itself an express and a very efficient agent in procuring situations and occupations for such as it qualifies to hold them. The great demand which exists for its graduates, and the high salaries which they command, are the best possible guaranties of the practical and business value of those whom it recommends.

The cost of a full regular course at this institute, including expenses of residence while in attendance, is so moderate—less than a hundred dollars—as to make it accessible to persons of limited means. Four large halls are at present employed, but the management design shortly to enlarge their accommodations, since no less than *five hundred scholars* are expected to be in attendance during the coming winter. The college is under charge of Professor F. W. Jenkins, a gentlemen of large experience and varied accomplishments, as well as an excellent disciplinarian. He is assisted by an able corps of professors and tutors, who have acquired much skill and experience in imparting instruction.

Of course, the system of commercial education is by no means yet considered perfected, and the management of the "Iron City College," as well, doubtless, those of other similar institutions, have it in contemplation to add from time to time such features as experience may suggest, or the needs of a more thorough and efficient education may demand. It seems to us, therefore, judging from what they have done, are doing, and will yet do, that as a class they are eminently worthy of public attention and patronage.

Art. III.—GARBLINGS: OR, COMMERCIAL COMMODITIES CHARACTERIZED.

NUMBER X.*

SUGARS.

ORIGIN AND HISTORY—DIFFERENT TYPES, CANE AND GRAPE—SUGAR CANE OF THE UNITED STATES—DIFFERENT SPECIES OF CANE—CHARACTER AND PROPERTIES OF RAW SUGAR—WHITE SUGAR, HOW PRODUCED—GRAPE SUGAR—DISTINCTION AND TESTS—DIASTASE—DEXTRINE—SORGHUM SACCHARATUM—DIFFICULTIES ATTENDING THE PRODUCTION OF CRYSTALIZABLE SUGAR FROM IT—QUALITIES OF SACCHARINE JUICE—ISOMERIC PROPERTIES OF CANE JUICE—COMPONENTS—IMPURITIES, MIXTURES, AND ADULTERATIONS—LIME, LEAD, IRON, GRIT—THE USE OF ALBUMEN IN REFINING—BAD QUALITIES OF BLOOD—FUNGI AND SUGAR LICE—DETECTION OF IMPURITIES—CONSTITUTIONAL EFFECTS.

THE word *sugar* is derived from the Sanscrit, *Sa-kar*, which signifies white earth. In China and Hindostan, sugar has been known from time immemorial. The ancient Greeks were also acquainted with it, and Diascorides informs us that it was obtained from reeds growing in India and Egypt. Sugar was not much used in Europe, however, until after

* For No. 1, see *Merchants' Magazine* for July, 1857, (volume xxxvii., pp. 19–23;) for No. 2, see same for August, (pp. 166–171;) for No. 3, see same for September, (pp. 298–303;) for No. 4, see same for November, (pp. 542–554;) for No. 5, see same for January, 1858, (volume xxxviii, pp. 43–50;) for No. 6, see same for February, (pp 175–183;) for No. 7, see same for March, (pp. 292–302;) for No. 8, see same for August, (vol. xxxix., pp. 164–175;) for No. 9, see same for September, (pp. 321–327.)

the discovery of America, and the transplantation of the sugar-cane in the West Indies. Yet sugar, in all respects identical with that from the cane, exists in, and may be obtained from, a great variety of other plants which possess no botanical relations. And in countries where the sugar-cane is not acclimatable, sugar is obtained from such other indigenous plants as are known to contain it. Beets, grapes, melons, sweet-potatoes, turnips, carrots, maples, birch, palms, cocoanut trees, pine apples, mangos, sabadillos, oranges, bananas, and many other plants, furnish sugar. The sugar obtained from all these various sources is perfectly identical in composition; nevertheless, very different in properties—a character of natural products which has already been pointed out under the head of distilled liquors.

Sugar, as thus constituted, may be divided into two grand types—*cane* and *grape*, both alike consisting of twelve equivalents of carbon and eleven each of hydrogen and oxygen. But grape-sugar combines with it the necessary amount of water—one equivalent—to convert it into alcohol and carbonic acid by the process of fermentation. Hence, the fermentation of cane-sugar, in order to give the same results, requires the addition of a corresponding proportion of water. The alcohol and carbonic acid produced by the fermentation of grape-sugar, or cane-sugar with an additional equivalent of water, exactly equals in weight the amount of sugar employed.

The sugar-cane of the United States, *saccharum officinarum*, belongs to the gramnaceæ or cereal family of plants, and is too well known to require particular description. In other parts of the world different species of the same class of plants are cultivated. Of such are the *Saccharum Sinense* of China, the *Saccharum Violaceum* of the West Indies and Tahiti, the Sorghum Saccharatum, or Sweet Sorgo, etc., of various other places; and from these the chief sugars of commerce are produced.

In the manufacture of cane sugar, soon after the juice is expressed, it begins to ferment and generate acid, which, in order that it may not interfere with crystalization, is immediately saturated with lime. The juice is then promptly concentrated by evaporation, and, on cooling, the sugar crystalizes in grains, which constitute brown sugar, or the raw Muscovado sugar of commerce. It varies from a pale yellowish-gray to a deep yellow-brown color, and, while new, is dry and easily separated into small, shining, four-sided grains; when pure, it has a clear, sweet taste, and slight honey-like odor.

Brown sugars are sorted or classed, according to their general aspect, into particular grades, depending upon their color, moisture, and crystaline state.

White sugar is produced by elutriation with a small quantity of water, solution in water heated by steam, clarification with albumen or alumina, filtering through charcoal, and concentration in vacuo, at the temperature of 150° F. Pure crystaline sugar is perfectly white, free of odor, of an intense sweet taste, without aroma. Its density is from 1.563 to 1.606. Fuses at a gentle heat, and on an increased temperature, swells and emits the peculiar odor of caromel. At a red heat, its burns with a livid white flame. In boiling-water it is soluble in any quantity, and water at the temperature of 60° dissolves more than twice its weight. It is soluble in about twelve parts of rectified spirits, and in eight parts of alcohol.

Pure cane sugar undergoes no change by simple exposure to the air. The deliquescent property of raw sugar depends upon impurities.

Sulphuric acid decomposes cane sugar, and deposits a black mass, resembling charcoal. Nitric acid converts it into saccharic and oxalic acids, and chlorine converts it into saccharic acid alone.

Grape sugar stands in relation to *cane*, pretty much as a counterfeit does to a genuine natural product—it is a compound identical in composition, but produced by artificial means. As already indicated, however, this type of sugar is abundantly diffused through the vegetable kingdom, and may be obtained as a natural product in large quantities. It is also the product of a fatal disease, *diabetes;* and, as above stated, it may also be made artificially.

To make grape sugar, take fifteen parts of potato-starch, sixty parts of water, and six parts of sulphuric acid; mix them together and boil for four hours. Then neutralize the liquid with chalk, filter and evaporate to small bulk. By digesting with animal charcoal the color may be removed, after which the solution may be boiled down to a thin syrup, and left to crystalize. In the course of a few days it solidifies to a mass of grape sugar.

Diastase (the name of a peculiar substance contained in germinating buds and seeds in the process of development) also possesses the curious property of converting starch into grape sugar. A little infusion of malt, or other germinating grain, mixed with a large quantity of gelatinous starch, and heated to the temperature of about 160°, in a short time occasions complete liquefaction, by the production of *dextrine*—a soluble substance resembling gum—which, in the course of a few hours, changes into grape sugar. Dextrine seems to be only a condition of starch—the same in composition, but different in properties.

Sugar obtained from the maple tree, beet-root, and some other plants, pertains to the type of cane sugar.

Sorghum Saccharatum.—The introduction of this plant in the United States a few years ago, was at first looked upon as a valuable addition to our agricultural resources. But scarcely had its perfect adaptation to soil and climate been proven, before doubts were promulgated whether its juice could be granulated. Exclusive familiarity with the saccharum officinarum lead our chemists to expect and to look for the same conditions in the sorghum, and failing in their efforts to crystalize the crude juice of immature specimens, they hastily pronounced the sorghum juice to be only glucose or grape sugar.

French chemists, however, have been more successful. They have found that the conditions of producing crystalized sugar from the sorghum juice are, in many respects, different from those pertaining to the saccharum officinarum. The crude juice of the sorghum contains a gummy principle, which, as maturity advances, gradually changes into sugar. One of the first conditions of this plant, therefore, is that it shall be fully ripe. The transformation of the gummy matter into sugar is indicated by an increasing specific gravity of the juice, which, when it reaches 1.080 and over, contains crystalizable sugar.

An experiment made at Verières in 1856, on sorghum grown in the Department of the Seine and Oise—a climate by no means best adapted to the greatest perfection of the plant—showed the juice to contain 10¼ per cent of crystalizable sugar, and 5¾ per cent of uncrystalizable, or glucose juice. So that it only seems necessary to exercise the same skill in developing the qualities of the sorghum as has been exercised on other

sugar-producing plants, in order that the sanguine expectations at first entertained concerning it may be fully realized.

Grape Sugar is easily distinguished from cane sugar by several important peculiarities. It is much less sweet, and not near so soluble, requiring one-and-a-half times its own weight of cold water to effect solution. When heated, it melts and loses four equivalents of water; on raising the temperature still higher, it blackens and decomposes. It combines with lime, baryta, and oxide of lead with difficulty, and when boiled in a solution of caustic potash it changes into a blackened substance. Cane sugar by the same tests is but slightly affected. It dissolves in oil of vitriol without changing color, and gives rise to a peculiar acid, which, with baryta, forms a soluble salt.

Cane sugar, as above stated, becomes instantly charred on the addition of oil of vitriol or sulphuric acid.

Cane and grape sugars, however, are frequently, indeed always to a certain extent, associated in the same plant or substance producing them. In honey this association is pre-eminent, and it is only by the process of purification that they are entirely separated.

When cane juice is first expressed, it is always more or less turbid. This condition is owing to the presence of innumerable cells and particles of gluten, starch, gum, woody fiber, wax, etc., all of which are in composition nearly allied to each other, and to the saccharine fluid in which they float. It is, therefore, by no means surprising that one kind of sugar may be transformed into or combined with another, or that any or all of the substances associated with it, may, by the action of certain salts and acids contained in the liquid during different stages of manufacture, change the whole into glucose or molasses, or produce a variable percentage of crystalizable sugar. These components of cane juice are all *isomeric.*

Impurities, Mixtures, and Adulterations.—The most palpable impurities are owing to a want of cleanliness and purity of material used in manufacturing—*fragments of cane, lime, lead, iron,* and *grit.*

The first of these substances may be regarded as certain evidence of cane sugar, but its presence indicates a want of nice preparation, and samples containing it also usually contain the other impurities named—from an excess of lime used in its manufacture, from the careless use of leaden and rusty iron vessels, and from neglecting to have the canes well washed before they are ground.

Impure sugars are so common that the unprincipled dealer finds a never-failing resource in them for adulterating better qualities, without the necessity for other and more dissimilar articles. The introduction of other substances, however, such as flour, starch, etc., is sometimes practiced for the purpose of improving color. The deterioration of sugar is always in proportion to the amount of impurities present, while pure crystalized sugar is scarcely at all affected by time, and not disposed to ferment or putrify. Grape sugar, on the other hand, is deficient in sweetening power, and very prone to putrification. It is therefore obvious that the existence or mixture of grape sugar with cane impairs its quality in proportion to the amount present.

Raw or Muscovado sugar always contains a considerable amount of molasses, which is mainly constituted of glucose or grape sugar. And the variety of sugar called "bastards" is also chiefly composed of un-

crystalizable glucose—consisting of fragments of cane, vegetable albumen, etc., which promote fermentation; and it is necessary that cane sugar be transformed into grape sugar before fermentation can take place, this condition being due to the presence of albumen, a nitrogenous compound, which pure cane sugar never contains.

The use of albumen, obtained from eggs and blood, in the manufacture of white sugar, is due to the solidification of that substance by heat, by which it forms meshes and films, which, being lighter than water, ascend, and in their course take with them the impurities contained in the solution. These impurities, with the albumen, form a scum on the surface, which is removed. This process, however, is sometimes defective when blood is used, which contains salts and other *effete materiel* which is not removed by the albumen. *Pure albumen*, the white of egg only, should be used.

The impurities above pointed out are not only injurious and unwholesome in themselves, but they lead to others which are abominable, unclean, and poisonous. The conditions of fermentation and decomposition are precisely those which give rise to and promote the growth of *fungous plants* and the most loathsome insects, which are never present except as a consequence of nitrogenized compounds.

Fungi consist of cells and fibers, always sprouting from organized and decayed substances, and sugar that contains them possesses the essential qualities of miasmatic poison, which, however small the quantity introduced into the human system, has the quality of a "little leaven," and establishes a predisposition to disease which only awaits an exciting cause.

Acarus sacchari, the *sugar louse*, is also generally present in impure sugars. It, like the fungi, cannot live without nitrogen. This insect belongs to the same class as, and much resembles, the *itch* insect. It is so large as sometimes to be visible to the unaided eye, and may be discovered in the following manner:—Take two or three teaspoonfuls of common brown sugar and add it to a wine glassful of warm water, allow it to stand for an hour or two, and by the end of that time animalcules may be discovered on the surface of the liquid, adhering to the sides of the glass, or in the capious dirty sediment at the bottom. A further study of these animals may, perhaps, demonstrate that they cause "grocers'," or sugar-handlers', "itch," which is only another name for "bakers' itch," and rarely attacks those who only handle pure sugar or pure flour.

Besides the means above pointed out for the detection of impurities, the microscope is an unfailing resource for discovering acarus sacchari, fungi, granules of starch, flour, woody fiber, etc.

Lime may be detected by a white precipitate with oxalate of ammonia.

Gum, by a white precipitate on the addition of a solution of subacetate of lead.

Grape sugar, by adding sulphuric acid.

Constitutional Effects.—Sugar, in some form or other, is an essential requirement for the healthy sustenance of man. It is of universal distribution in the vegetable kingdom, and has, in all ages, been considered a necessary element of nutrition. In composition it is analogous to the chief elements of bread, nearly all of which are transformable into sugar. It is, in itself, non-nitrogenous, but it obtains this element from other necessary compounds, which constitute the formative material for the human constitution.

A common prejudice against sugar is, that it injures the teeth—an economical idea for children, but at variance with physiological fact.

Inferior qualities of brown sugar are not only poisonous, but they are deficient in sweetening power, and by increased weight from moisture, they are more expensive than the purest refined. The best qualities of brown sugar are infinitely inferior to the worst white lump.

Art. IV.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LVII.

CHICAGO, ILLINOIS.

GENERAL POSITION OF CHICAGO—LAKE AND RAILWAYS—TRANSPORTATION—POPULATION AND VALUATION—VALUATION FOR EIGHTEEN YEARS—NUMBER OF PEOPLE SINCE 1851—RAILROAD EXPENDITURE IN ILLINOIS—MILES OF RAILROAD IN OPERATION—AGGREGATE CENTERING IN CHICAGO—COUNTRY TRIBUTARY—GRAIN SHIPMENTS AND PRICES—INFLUENCE OF RUSSIAN WAR ON PRICES AND RECEIPTS IN CHICAGO—EFFECT OF TRANSPORTATION—EARNINGS OF RAILROADS FOR 1857—EARNINGS OF CORPORATIONS—ILLINOIS CANAL—IMPORTS AND EXPORTS OF CHICAGO BY ALL ROUTES—GRAIN RECEIVED FROM ALL POINTS—SHIPPING AND LAKE TRADE—TONNAGE—LUMBER MARKET—WESTERN PINERIES—CAPITAL IN TRADE—RECEIPTS—LUMBER—SHIPMENTS INLAND—MANUFACTURES OF CHICAGO—CAPITAL—HANDS EMPLOYED—VALUE—EFFECTS OF THE PANIC—CITY IMPROVEMENTS.

The general position of Chicago, which so early designated it as the leading city of the West, has not failed to foster its rapid growth, and to sustain its pretensions as the Western emporium. Commanding, as it does, the coasts of the Old as well as of the New World, from its position at the head of lake navigation, which has lately, in the Michigan courts, been decided not to be inland navigation, it is the center of railroad communication with a vast and fertile country peculiarly adapted for the cheap construction of those means of rapid transportation, and which pours its produce, as of necessity, into the bosom of Chicago. These general circumstances could not fail to produce great results, and we trace them generally in the following figures of population and valuation of the city:—

POPULATION AND VALUATION OF CHICAGO.

Years.	Population.	Real estate, valuation of.	Personal property, valuation of.	Total.
1840	4,479	$94,437	.....	$94,437
1841	....	127,024	$39,720	166,744
1842	....	108,757	42,585	151,342
1843	7,580	962,221	479,093	1,441,384
1844	....	1,992,095	771,186	2,763,281
1845	12,088	2,273,171	791,851	3,065,022
1846	14,169	3,664,425	857,231	4,521,656
1847	16,859	4,995,466	853,704	5,849,170
1848	20,023	4,998,266	1,302,174	6,300,440
1849	23,047	5,181,627	1,495,047	6,676,684
1850	28,269	5,685,965	1,534,284	7,220,249
1851	32,270	6,808,262	1,758,458	8,562,717
1852	38,787	10,107,204	2,391,102	12,498,306
1853	60,652	13,130,677	3,711,154	16,841,831
1854	65,872	18,790,744	5,401,495	24,394,239
1855	83,509	21,901,204	5,521,000	27,422,204
1856	110,000	25,771,181	5,717,959	31,489,140
1857	130,000	29,018,196	7,248,053	36,256,249

The increase has been very rapid since 1851, and if we take the aggregate valuation for a number of preceding years, the results are as follows:—

TABLE EXHIBITING TOTAL VALUE OF REAL AND PERSONAL PROPERTY IN CHICAGO.

1839.....	$1,829,420	1845.....	$3,669,124	1851.....	$9,481,826
1840.....	1,861,205	1846.....	5,071,402	1852.....	12,085,037
1841.....	1,888,160	1847.....	6,189,385	1853.....	22,929,637
1842.....	2,325,240	1848.....	9,986,000	1854.....	24,446,288
1843	2,250,735	1849.....	7,617,102	1855.....	31,489,140
1844.....	3,166,945	1850.....	8,101,000	1857.....	36,256,249

The increase in the number of the people has been very rapid since 1851; that is to say, since the influence of the gold discoveries, and the valuation, per head, has maintained its ratio per inhabitant. The influence of railroads upon this development of business, has been direct and important. The amount of money expended in Illinois and the neighboring States has been about $180,000,000, the disbursement of which has aided in settling, stocking, and working a vast extent of country, the products of which are carried over these roads more or less directly to Chicago. The progress in this respect may be seen from the following table of the miles of road entering Chicago, completed in June, 1855, and June, 1858:—

	June, 1855, miles.	June, 1858, miles.
Chicago and Milwaukee	40	85
Kenosha and Rockford	..	11
Racine and Mississippi	..	86
Chicago, St. Paul, and Fond du Lac	41	131
Milwaukee and Mississippi, (Western Division.)	84	130
Galena and Chicago Union	121	121
Fox River Valley	..	34
Wisconsin Central	..	8
Beloit Branch	20	20
Beloit and Madison	..	17
Mineral Point	..	32
Dubuque and Pacific	..	29
Galena (Fulton) Air Line	96	136
Chicago, Iowa, and Nebraska	..	36
Chicago, Burlington, and Quincy	85	210
Burlington and Missouri	..	35
Quincy and Chicago	84	100
Hannibal and St. Joseph	..	65
Chicago and Rock Island	181	182
Mississippi and Missouri, 1st division	81	55
" " 2d "		20
" " 3d "		13
Peoria and Bureau Valley	40	47
Peoria and Oquawka	47	143
Chicago, Alton, and St. Louis	281	284
Illinois Central	602	704
Pittsburg, Fort Wayne, and Chicago	..	383
Michigan Southern and Northern Indiana	247	242
Cincinnati, Peru, and Chicago	..	28
Michigan Central	282	282
New Albany and Salem	284	284
Eleven trunk and twenty branch and extension lines...	2,455	3,953

There has been put in operation 1,500 miles of roads, which have extended the area of country that pours its wealth into Chicago. The projected connections of these roads extend over four thousand miles more,

making 8,000, and their ultimate ramifications embrace every section of the Union. Every extension of railroads forms a center, embracing the breadth of land which feeds that center, as the square of the distance. If a wagon can bring a load 20 miles in a day, and a railroad run 60 miles, then the breadth of land that may be drained in the same time is nine times greater by the railroad. If the cars come 100 miles in the same time the wagons come 20, then the breadth of land commanded in a given time is twenty-five times greater. From every point of the compass these lengthening roads run from Chicago over the most fertile country. It is therefore not to be wondered at that Chicago is the greatest grain depot in the world, nor that her grain receipts have improved in the following ratio:—

SHIPMENTS OF GRAIN FROM CHICAGO FOR TWENTY YEARS.

Years.	Wheat, bushels.	Corn, bushels.	Oats, bushels.	Barley, bushels.	Rye, bushels.	Total, bushels.
1838....	78	....	...	....	....	78
1839....	3,678	....	....	....	...	3,678
1840....	10,000	....	....	....	....	10,000
1841....	40,000	....	....	....	....	40,000
1842....	586,907	....	....	....	....	586,907
1843....	688,907	....	....	....	....	688,907
1844....	923,494	....	....	....	....	923,494
1845....	1,024,620	....	....	....	....	1,024,620
1846....	1,599,819	....	....	....	....	1,599,819
1847....	2,136,994	67,315	38,892	....	....	2,243,201
1848....	2,386,000	550,460	65,280	....	....	3,001,740
1849....	2,102,809	644,848	26,849	31,453	....	2,769,111
1850....	1,387,989	262,013	186,054	22,872	....	1,830,928
1851....	799,890	3,221,317	605,827	19,997	....	4,646,291
1852....	941,470	2,757,011	2,030,317	127,028	17,315	5,873,141
1853....	1,680,998	2,780,253	1,748,493	120,275	82,162	6,412,181
1854....	2,644,860	6,837,899	3,239,987	148,421	41,153	12,932,320
1855....	7,115,270	7,517,678	1,888,533	92,032	20,132	16,633,700
1856....	9,419,365	11,129,668	1,014,547	19,051	590	21,583,221
1857....	10,783,292	6,814,615	416,778	17,993	....	18,032,678

AVERAGE PRICES OF GRAIN AND FLOUR.

Years.	Winter wheat, bushel.	Spring wheat, bushel.	Flour, per barrel.	Corn, bushel.	Oats, bushel.
1838.....	$0 50	$0 38	$2 25 a 2 50	...	$0 20
1839.....	0 55	0 40	2 50 a 2 75	...	...
1840.....	0 62½	0 50	3 00 a 3 25	$0 40	0 20
1841.....	0 65	0 50	3 25 a 3 35	...	...
1842.....	0 45	...	2 75 a 3 25	0 20	0 15
1843.....	0 45	0 38	2 62 a 2 87½	0 20	0 15
1844.....	0 65	0 55	3 25 a 3 75	0 40	0 30
1845.....	0 69	0 52	3 50 a 3 75	0 40	0 19
1846.....	0 56	0 40	3 25 a 3 50	0 22	0 14
1847.....	0 67	0 50	3 50 a 4 00	0 26	0 15
1848.....	0 80	0 70	3 75 a 4 00	0 32	0 26
1849	0 82	0 66	3 75 a 4 00	0 43	0 20
1850.....	0 89	0 78	4 50 a 4 75	0 45	0 40
1851	0 62	0 65	2 50 a 4 00	0 36	0 28
1852.....	0 68	0 40	2 75 a 4 25	0 40	0 24
1853.....	0 85	0 60	3 75 a 5 25	0 47	0 33
1854.....	1 30½	1 09	6 98 a 7 48	0 48½	0 30
1855.....	1 55	1 31	7 12½ a 8 14½	0 62	0 33½
1856	1 27½	1 05½	4 91 a 6 26	0 36	0 28½
1857.....	1 17½	0 93	5 05½	0 53	0 39½

The above tables embrace three periods having reference to the foreign demand which raised the prices. The first period is that of the famine of Ireland on the failure of the potato crops, which commenced in 1845, and which carried the prices of corn and wheat to unusual height during the three years ending with 1850. At that time Chicago had no other communication with the interior but that of the canal, and lake navigation furnished her only avenue to market. The grain of the valley of the Illinois River, and that commanded by the canal, went South to New Orleans. Nevertheless, the prices were sufficient, as seen by the figures, to develop a large wheat trade in Chicago. In 1846–47–48, during the high prices abroad, the crops rapidly developed, and were brought in by wagons to the port to be shipped by the lake. The years 1851–52 were of reaction and low prices, giving no encouragement to the distant grain ports. With the year 1857 commenced not only a marked revival in the foreign trade for grain, mostly wheat, but a large expenditure of money, amounting since to $180,000,000 for the construction of those railroads which have drained the surrounding grain country into Chicago, and have also aided its sales. In Chicago, during the five years ending with 1850, when there were no railroads to bring wheat into the city, wheat averaged 75 cents per bushel. In the last five years it has averaged $1 23 per bushel. Corn has averaged 50 cents, against 33 cents at the former period. The effect of these prices has been the immense increase in the grain supplies, particularly corn. The $180,000,000 which has been spent in the last named period for the construction of railroads has, to a large extent, become capital in the hands of cultivators who have produced the grain. The value of the wheat and corn brought to market at these two periods was as follows:—

	Five years to 1851.			Five years to 1858.		
	Bushels.	Price.	Value.	Bushels.	Price.	Value.
Wheat....	9,703,611	75	$7,278,709	31,648,785	$1 23	$39,554,731
Corn.....	1,524,636	33	508,212	35,080,113	50	17,540,056
Total.	11,228,247	..	$7,786,921	67,723,898	..	$57,094,787

Thus the value of these two grains alone, received at Chicago, has been equal to an increase of nearly $50,000,000, or $10,000,000 per annum. This trade has been developed during the season of high prices abroad, and while the railroads have not operated fully. The corn has been received one-half by the canal, and the remainder by the railroads. The wheat has come to hand nearly altogether by railroads. The teams in the last year brought in about 200,000 bushels, and the canal 880,000 bushels, together 10 per cent of the whole.

It is obvious that the business of Chicago has been based on a solid foundation; that the natural products of an area of at least 200 miles diameter, intersected at every point by railroads, has been drawn into her warehouse, and the fast-settling country has required merchandise in return. The operations for a moment has encountered a check, but cannot be lasting. Prices of grain may decline for the moment, but the general trade cannot but increase. The whole machinery is now in operation. If railroad expenditure is less, the attractions of the land are greater, and vast tracts still invite settlers to add to the future resources of Chicago.

At this moment, the machinery of production and transportation, in and around Chicago, indicates that it is just now entering upon

its career. The prices for grain for the moment are dull, owing to good harvests abroad, but the Western country can now sell and deliver cheaper than ever. The railroad expenditure is to be run down for the present; but it follows that the local demand for food is also less in proportion; that while the whole industry of the section is turned to production, it depends upon the foreign market only for the sale of its surplus. The earnings of the railroads indicate the immense development of business they have occasioned. Six years since the whole amount was $40,000, derived from 40 miles of the Galena Road. The result of the last year's business was as follows:—

EARNINGS OF ALL THE RAILWAYS CENTERING IN CHICAGO FOR THE YEAR 1857.

	TOTAL EARNINGS.			
	Passengers.	Freight.	Mails, &c.	Total.
Chicago and Milwaukee.....	.....	.....	.....	$532,732 92
Racine and Mississippi.....	.....	.....	.....	271,608 44
Chicago, St. Paul, & Fond du Lac	$239,308 19	$178,452 66	$11,544 54	429,305 39
Milwaukee and Mississippi.....	(*vide* receipts in full)			441,408 94
Galena and Chicago Union.....	726,909 58	1,321,737 67	69,258 72	2,117,904 97
Fox River Valley.....		(estimate.)		30,000 00
Mineral Point	8,465 29	14,465 87	650 35	23,581 51
Dubuque and Pacific	28,720 07	22,676 09	273 89	51,660 05
Chicago, Iowa, and Nebraska...	1,552 21	11,630 39	448 05	19,830 65
Chicago, Burlington, & Quincy..	592,565 81	1,280,522 76	16,497 92	1,889,586 49
Burlington and Missouri	30,618 45	17,836 38	589 75	49,044 58
Quincy and Chicago.....	145,422 12	173,011 04	18,890 73	337,323 89
Chicago and Rock Island.....	742,949 84	882,384 16	55,967 57	1,681,101 57
Mississippi and Missouri	147,911 35	148,244 30	.....	296,155 74
Chicago, Alton, and St. Louis...	442,484 18	523,806 43	32,068 86	998,309 47
Illinois Central.....	1,064,978 46	1,087,987 55	190,998 56	2,293,964 57
Pittsburg, F. Wayne, & Chicago	941,175 14	653,916 61	53,787 48	1,652,727 95
Michigan Southern & N. Indiana	1,316,478 21	833,053 80	31,592 96	2,186,124 97
Michigan Central	1,447,526 78	1,130,819 25	78,125 33	2,656,471 36
New Albany and Salem		(estimate.)		631,868 00
Total.....				$18,590,520 26

Several new lines were added to the above list during the past year, but in order that we may form definite ideas of the aggregate effect of the panic on the railways, we present the earnings of the twelve roads then reported for each year:—

	Earnings.	
	1856.	1857.
Chicago and Milwaukee.....	$650,000 00	$522,731 92
Chicago, St. Paul, and Fond du Lac.....	137,303 67	429,305 39
Galena and Chicago Union	2,456,045 80	2,117,904 97
Fox River Valley	50,000 00	30,000 00
Chicago, Burlington, and Quincy.....	1,627,029 61	1,899,586 49
Quincy and Chicago, six months..... ...	215,222 79	347,323 89
Chicago and Rock Island	1,751,704 60	1,681,101 57
Chicago, Alton, and St. Louis.....	1,000,000 00	998,309 48
Illinois Central.....	2,469,533 67	2,293,964 57
Michigan Southern and Northern Indiana....	3,114,756 06	2,186,124 97
Michigan Central	3,120,154 10	2,656,471 36
New Albany and Salem.....	743,492 53	631,868 00
Total.....	$17,343,242 83	$15,784,692 60

The result is not a large decline, but the panic operated but upon a portion of the year's business, and will more fully develop its effects in

the succeeding year. In addition, these railroads are the operators of the Illinois and Michigan Canal, of which the tolls are $200,000 per annum. The imports and exports of the city, from all sources for the past year were as follows :—

STATEMENT SHOWING THE COMPARATIVE RECEIPTS AND SHIPMENTS BY LAKE, CANAL, AND RAILROAD FOR 1857.

	RECEIPTS.			
Articles.	Lake.	Canal.	Railroad.	Total.
Agricultural implements..lbs.	....	37,300	15,286,072	15,323,370
Agricultural products	146,460	28,760	11,723,006	11,893,227
Ashes	....	....	181,792	181,792
Apples.....bbls.	8,375	....	8,795	17,170
Barley.....bush.	33.160	2,692	86,121	122,043
Barrels, empty.....	12,910	1,240	32,771	46,921
Beer.....bbls.	22,596	....	2,429	25,025
Brick.....M.	559	191	217,721	218,471
Butter .....lbs.	....	4,395	1,534,990	1,539,385
Cattle.....No.	53	....	48,235	48,288
Cheese.....lbs.	....	8 000	970,590	978,590
Coal.....tons	134,043	6,636	30,671	171,350
Corn..... bush.	3,200	4,122,605	3,085.825	7,211,630
Cotton .....lbs.	....	....	103,000	103,000
Dressed hogs.....	....	....	8,442,611	8,442,611
Dressed beef.....	....	....	211,712	211,712
Dried fruit	....	....	516,987	516,987
Flour.....bbls.	5,347	12,931	376,752	395,030
Furniture ..... packages	4,290	....	....	4,290
Furniture.....tons	....	11	2,632	2,643
Furs.....lbs.	....	1,138	....	1,138
Grass seed.....	5,900	162,751	2,288,572	2,257,223
Hemp	....	193,637	....	193,637
Hides.....	....	72,353	5,366,931	5,439,284
Hides.....No.	1,159	....	61,833	62,992
Hogs, live.....	...	....	208,902	208,902
Horses.....	....	....	4,428	4,428
Hubs.....	24,584	...	....	24,584
Iron and nails .....tons	6,950	8	2,835	9,793
Iron, pieces and scrap.....	6,154	21	255	6,620
Lard.....bbls.	....	149	7,085	7,234
Lath.....No.	79,650,000	....	494,000	80,144,000
Lead.....tons	....	36	2,091	2,127
Lime, &c .....bbls.	23,320	7,686	45,485	76,491
Lumber.....feet	444,396,300	196,150	15,046,748	459,639,198
Machinery.....packages	175	....	....	175
Machinery.....tons	104	41	59	204
Malt.....bush.	3,360	....	42,376	45,736
Merchandise..... packages	160,763	....	....	160,763
Merchandise.....tons	82,749	202	91,663	174,612
Meal.....lbs.	...	13,700	101,892	115,592
Mill stuffs	....	435,319	7,927,556	8,362,875
Molasses.....bbls.	....	....	1,848	1,848
Oats.....bush.	80	366,739	940,432	1,307,251
Oil-cake.....lbs.	....	....	45,767	45,767
Paper.....	....	....	436,460	436,460
Pickets.....No.	....	....	1,182,000	1,182,000
Pork.....bbls.	5	2,787	6,126	8,918
Posts, cedar.....No.	544,302	....	....	544,302
Provisions.....lbs.	14,200	1,395,198	4,852,830	6,252,228
Railroad iron.....tons	27,305	....	787	28,092
Railroad ties.....No.	120,076	....	2,057	122,133
Rye..... .....bush.	....	2,213	84,485	86,698
Salt..... bbls.	204,469	....	4	204,473

Articles.	Lake.	Canal.	Railroad.	Total.
Salt.....sacks	117,377	....	....	117,377
Lard.....tons	....	1,850	....	1,850
Sheep.....No.	....	....	52,469	52,469
Shingles.....	130,462,250	....	1,368,000	131,830,250
Shingle bolts.....cords	7,182	....	....	7,182
Shot.....lbs.	....	81,000	....	81,000
Spokes.....No.	373,300	....	....	373,300
Staves.....	3,123,000	30,610	....	3,153,610
Stone..... cubic yards	....	122,842	....	122,842
Stone-ware	58,123	....	....	58,123
Sugar.....lbs.	....	1,714,961	6,432,166	8,147,127
Tar.....	....	29,750	....	29,750
Threshing machines .....No.	140	....	210	350
Tobacco.....lbs.	....	91,266	....	91,266
Wagons and buggies.....No.	625	5	153	783
Wheat.....bush.	8,470	885,531	9,461,029	10,355,030
Whisky..... bbls.	430	5,881	24,255	30,566
White-lead.....lbs.	....	425,012	...	425,012
Wood..... cords	79,463	21,592	17,974	119,029
Wool .....lbs.	....	89,588	1,027,243	1,116,831
	SHIPMENTS.			
Agricultural implements..lbs.	....	520,418	6,930,844	7,451,262
Agricultural products.....	....	53,312	1,348,192	1,401,404
Ashes.....	....	....	165,582	165,582
Apples.....bbls.	10	....	5,931	5,941
Barley.....bush.	1,104	9,993	158,829	169,926
Bark.....cords	....	686	....	686
Barrels..... ....No.	....	3,900	10,037	13,937
Beans .....bush.	54	....	8,600	8,654
Beer.....bbls.	....	6	1,313	1,319
Beef.....	44,203	53	146	44,402
Broom corn .....tons	358	....	35	393
Buckwheat flour.....bbls.	....	....	83	83
Butter .....lbs.	....	....	45,350	45,350
Castings.....tons	....	226	849	1,075
Cheese.....lbs.	....	....	218,406	218,406
Coal.....tons	....	634	22,764	23,398
Corn.....bush.	6,776,514	....	48,620	6,825,134
Cattle.....No.	122	....	25,365	25,487
Dressed hogs .....lbs.	....	....	4,229,253	4,229,253
Dressed beef.....	....	....	348,626	348,626
Dried fruit.....	....	....	13,179	13,179
Engines .....No.	5	....	....	5
Fish .....bbls.	....	147	....	147
Flour.....	167,227	644	78,407	255,278
Furniture.....tons	....	47	392	439
Grass-seed.....lbs.	731,300	...	806,648	1,537,948
Grind-stones .....tons	....	14	....	14
Hair.....	40	....	....	40
Hay.....	484	596	...	1,080
Hides.....No.	75,200	....	66,578	141,778
Hides.....lbs.	196,000	....	1,320,300	1,516,300
Hoops.....cords	....	35	....	35
Hogs .....No.	....	....	110,070	110,070
Horses.....	....	....	2,105	2,105
Iron and nails .....tons	39	140	24,328	24,479
Iron, pieces and scrap.....	601	106	35	742
Lard.....bbls.	2,210	....	1,476	3,686
Lath.....No.	....	14,118,275	38,519,420	52,637,695
Lead.....tons	928	....	180	1,108
Lime .....bbls.	1,010	1,392	12,759	15,161
Lumber.....feet	240,330	82,427,639	228,919,870	311,787,839
Machinery .....tons	....	....	2,273	2,273

Articles.	Lake.	Canal.	Railroad.	Total.
Marble	....	102	....	102
Machinery	115	91	....	206
Merchandise	9,189	717	137,253	147,159
Merchandise .....packages	23,178	....	....	23,178
Meal.....lbs.	402,770	....	113,289	516,059
Mill-stuffs	....	....	76,716	76,716
Mill-stone	....	6,500	1,400	7,900
Molasses ....bbls.	....	....	1,506	1,506
Oats.....bush.	389,184	1,890	24,538	415,612
Oil.....bbls.	....	35	....	35
Pelts, &c .....lbs.	....	....	592,973	592,973
Pork.....bbls.	12,151	91	17,836	30,078
Posts .....No.	....	31,656	587,880	619,536
Provisions .....lbs.	1,617,460	....	1,846,106	3,463,566
Railroad iron.....tons	129	55	....	184
Reapers.....No.	102	....	869	971
Salt .....bbls.	2,240	11,578	57,501	71,319
Salt.....sacks	....	58,584	....	58,584
Lard.....tons	....	585	88	673
Sheep.....No.	45	....	6,471	6,516
Shingles.....	....	20,131,250	134,696,500	154,827,750
Shingle bolts .....cords	....	489	76	565
Staves.....	....	519	206	725
Stone .....tons	1,604	....	7,000	8,604
Sugar.....lbs.	....	12,645	876,550	889,195
Sundries.....tons	99	35	3,464	3,598
Tallow.....lbs.	1,807	37	345	2,189
Vinegar.....	....	60	....	60
Wagons.....No.	....	110	1,624	1,734
Wheat.....bush.	9,284,705	12,383	187,964	9,485,082
Whisky..... ..... bbls.	609	359	9,014	9,982
Wood .....cords	....	....	126	126
Wool .....lbs.	3,276	....	735,711	738,987

The aggregate receipts of grain and flour have been has follows for all points inland and by lake:—

	1854.	1855.	1856.	1857.
Wheat.....bush.	3,038,955	7,535,097	8,767,760	10,554,761
Corn.....	7,490,753	8,532,377	11,888,398	7,409,180
Oats.....	4,193,385	2,947,187	2,219,897	1,707,245
Rye.....	85,961	68,068	45,707	87,911
Barley.....	201,764	301,805	128,457	127,689
Total.....	15,010,818	17,284,534	23,050,219	19,886,536
Flour, its equival't in wheat	792,875	1,203,310	1,624,605	1,969,670
Total.....bush.	15,804,423	20,487,953	24,674,824	21,856,206
Flour.....bbls.	234,575	320,312	410,989	489,934

Rapid as has been the progress of great railroad enterprises, it has not been at the expense or sacrifice of the lake commerce. Indeed, it is far otherwise; for since the completion of the great lines of railroads, the commerce of the lakes has been greater than ever before. Indeed, the railway interest acts as a direct feeder to the shipping; and if the one prospers the other cannot decay. As carriers they are not competitors; for the railways can never carry either freight or passengers as cheap as the sail-vessel, propeller, or steamboat. There are articles of merchandise where dispatch is the great desideratum with the purchaser, which it is better to carry by railroad; but in the great staples of trade—the grain, flour, beef, pork, and lumber—the sail-vessels and propellers will always be the principal carriers.

NUMBER AND TONNAGE OF VESSELS ARRIVING AT CHICAGO, 1854 TO 1857.

	No. vessels.	Tonnage.		No. vessels.	Tonnage.
1854.....	5,021	1,092,644	1856.....	7,328	1,545,879
1855.....	6,610	1,608,945	1857.....	7,557	1,753,418

Chicago, as a lumber market, has for many years stood pre-eminent. Its rise and progress is only equaled by the rapid development of the city as a center of the territory west of the great lakes; and, in importance, this branch of its commerce is second perhaps to no other. The river banks are lined for miles and miles with the immense piles of lumber which is shipped to Chicago from the pineries of Michigan, Wisconsin, and Canada, and it is perhaps the best criterion that could be adopted to comprehend the magnitude of the trade. The capital invested in the lumber business is immense. Not to speak of the property owned by merchants in mills and woodlands, the wealth which is invested in stock, in docks, and in real estate in that city, cannot be less than ten or a dozen million dollars. The fleet of lumber vessels alone did not cost less than a million and a half of dollars; and the number of hands employed in the business, one way and another, cannot fall short of ten thousand. The receipts for a number of years were as follows:—

RECEIPTS OF LUMBER, LATH, AND SHINGLES FOR ELEVEN YEARS.

	Lumber.	Shingles.	Lath.
1847.....	32,118,225	12,148,500	5,655,700
1848.....	60,009,250	20,000,000	10,250,109
1849.....	73,259,553	39,057,750	19.281,733
1850.....	100,364,779	55,423,750	19,809,700
1851.....	125,056,437	60,338,250	27,583,475
1852.....	147,816,282	77,080,500	19,759 670
1853.....	202,101,098	93,483,784	39,133,116
1854.....	228,336,783	28,061,250	32,431,550
1855.....	306,553,467	158,770,860	46,487,550
1856.....	456,673,169	135,876,000	79.235,120
1857.....	459,639,198	131,832,250	80,130,000

The destination of this lumber is seen by the routes it took last year as follows:—

SHIPMENTS OF LUMBER FOR THREE YEARS.

	1855.	1856.	1857.
By lake.....feet.	5,500	17,800	240,830
By canal.....	81,040,328	78,633,990	82,427,643
By Galena Railroad.....	111,081,351	135,709,150	70,732,960
By Michigan Southern Railroad....	216,835	152,014	.....
By Michigan Central Railroad.....	287,988	149,705	414,870
By Rock Island Railroad.....	18,207,723	24,232,705	26,526,425
By Illinois Central Railroad.....	.....	.....	32,615,279
By Chicago and St. Paul Railroad..	4,746,184	19,492,368	8,333,453
By Chicago, Alton, and St. Louis R.	.....		17,068,850
By Chicago, Burlington, & Quincy R.	.....	.....	71,329,393
By Chicago and Milwaukee Railroad	.....	.....	1,888,590
City supply on hand.....	90,968,113	203,285,437	148,080,405
Total feet.....	306,553,467	456,673,169	459,639,198

With these leading features of the large commerce which is carried on in Chicago, in receiving the produce of the fast-settling prairies and supplying them with lumber and goods, a large manufacturing business has grown up in the city. The capital and hands employed are as follows:—

MANUFACTURES OF CHICAGO.

	Capital.	Hands.	Value of Manufactures.
Iron works, steam engines, &c.	$1,768,900	2,866	$3,887,084
Stoves	185,000	70	288,000
Agricultural implements	597,000	575	1,134,300
Brass and tin ware, &c.	257,000	351	471,000
Carriages, wagons, &c.	356,000	881	948,160
High wines, beer, ale, &c.	497,000	165	1,150,820
Soap, candles, lard, &c.	296,000	100	528,021
Furniture	554,000	504	543,000
Stone, marble, &c	617,950	843	896,775
Planing mills, sash, doors, &c.	445,000	554	1,092,397
Musical instruments	13,200	31	37,000
Leather	332,000	126	432,000
Barrels, wooden ware, &c	178,700	171	357,250
Brick	300,000	500	712,000
Flour	325,000	73	636,569
Chemicals	15,000	15	32,000
Harness, saddles, &c.	82,900	220	271,000
Sheet and bar lead	25,000	75	100,000
Glue and neats foot oil	20,000	15	25,000
Starch (estimated)	15,000	25	75,000
Daguerreotypes, ambrotypes	75,000	75	100,000
Engraving, &c.	11,000	30	29,500
Cigars	8,050	26	16,800
White lead	50,000	10	7,200
Types, &c.	.....	20	...
Boots, shoes, clothing, & other manufactures, est.	500,000	1,750	750,000
Miscellaneous (reported)	439,700	502	1,044,697
Total	$7,759,400	10,573	$15,515,063

The panic of the last fall has thrown a cloud over these employments for the moment, only to restore greater activity with the coming year.

With the wealth of the city its embelishments indicate the public spirit of its people. The Chicago *Daily Press* remarks:—The improvements for the year 1857 have generally been of a character, both as to style of architecture and costliness of materials, far ahead of the improvements of any former year. Massive business blocks, such as can be found in no other city in the United States, except New York, some of iron, some of marble, and others of brick, five stores in height, with capacious basements; costly marble and brick residences, and spacious churches, constitute the more prominent features of these improvements. Aside from these, a larger amount of less pretending improvements have been made than ever before, which, if not effecting so marked a difference in our city's characteristics as those first spoken of, are nevertheless of quite as much importance to its growth and prosperity, in affording cheap places of business for men of limited means, and residences at living rentals for the families of the less thrifty traders, and for the operatives in our growing manufacturing establishments. Without going into our usual detail under this head, we present the following table as showing the amount of capital invested in these improvements during the year 1857:—

Description of building.	South division.	West division.	North division.
Business blocks and buildings	$1,584,100	$211,500	$144,200
Residences	451,795	227,500	189,400
Churches	75,000	67,200	61,500
	$2,110,895	$506,200	$395,100

Total in three divisions	$3,012,195 00
2,000 buildings in various parts of the city, not included in the above, averaging $1,000 each (estimated)	2,000,000 00
City improvements, as per report of Superintendent of Public Works	411,323 62
Unenumerated improvements, by sewerage and water commissioners, by gas company, by canal companies, and by private individuals (estimated)	1,000,000 00
Total	$6,423,518 62
Cost of improvements 1854	2,438,910 00
" " 1855	3,735,254 00
" " 1856	5,708,624 00
" " 1857	6,423,518 62

Art. V.—SALT, SALT MINES, SALINES, ETC., IN THE UNITED STATES.

CESSION OF SPRINGS — SUPERINTENDENT APPOINTED — PRESENT PRODUCE — SOLAR EVAPORATION — YIELD PER ACRE — MADE BY FIRE — DUTY ON SALT — GENERAL WHITE, AGENT — DEMAND FOR SALT DURING THE WAR — NEW LEASE — SALINES OF KANAWHA — WELLS SUNK — GAS — PETROLEUM — SALT ROCK IN VIRGINIA — LARGE SUPPLY OF SALT — IMPORTATION OF SALT — TOTAL SALT HOME-MADE AND IMPORTED — ONONDAGA SALINES — SALT LAKE — ISLAND OF ST. MARTIN'S — VOLCANO CRATERS — CANADA WEST.

In 1788, the State of New York, in a treaty made with the Indians at Cayuga Ferry, obtained a cession of the Onondaga Salines. In 1797, the State appointed a superintendent of these salines, and from the 20th of June of that year to the 31st of December, 1857, these salines produced one hundred and ten million two hundred and ten thousand four hundred and fourteen (110,210,414) bushels of salt, of fifty-six pounds each. About forty gallons of salt water of these salines make a bushel of fifty-six pounds of salt. The State superintendent, in 1850, estimated that salt, by solar evaporation, could be made at these salines for four cents per bushel. An acre of solar salt-vats yield three thousand bushels of salt per annum—one man can attend two acres. Salt made in iron kettles by heat of fire, requires two-and-a-half cords of wood to produce a bushel of salt. A block of forty iron kettles, of one hundred gallons each, will, in five running days, with two additional for cooling down and clearing out the kettles, yield one thousand bushels of salt. The wells from which the salt water is pumped up are from two hundred and thirty-seven to two hundred and eighty-five feet in depth.

The State of New York, from 1797 to 1834, imposed a duty of twelve-and-a-half cents per bushel of fixty-six pounds. In 1835, it was reduced to six cents, and since 1846 has been at one cent per bushel. The present rate pays the expense of sinking wells, pumping, etc. The supply of salt water does not appear to diminish, nor its quality in the least impaired, by continued pumping.

Among my files, I have an old letter from General White, of Equality, Illinois, which says:—"In 1809, I was appointed agent on the part of the United States for the works at this place, and being then quite a young man, and was advised that the object of the government was to make the greatest possible quantity of salt at as low a price to the consumer as possible, these were the propositions offered in the advertisements,

and the leases were taken with strong covenants to make as much salt as could be made, and to sell it at a given price, generally seventy-five cents for a bushel of fifty pounds, the first lease lower but soon raised by permission of the government. My duty consisted principally in distributing this salt, as fast as made, among the applicants, as the demand was greater than the supply, and a short distance off it was worth from two to three dollars for a bushel of fifty pounds, or from four to six cents per pound. The lease expired in 1813, during the war, when a great demand for salt existed. The government now seemed to change its policy, and instead of leasing to those who would make the greatest quantity and sell cheapest, they wanted the most rent they could get, and permitted a higher price, viz., one dollar and twenty-five cents per bushel. A new set of men came, and gave fifty thousand dollars per annum, under the impression that the water was inexhaustible, and that the advance in price would enable them to pay this rent, and they would make a fortune. By this time the wood was exhausted, (had not learned to burn coal then,) new lines of pipes had to be made, new wells dug, old lines lengthened, new furnaces to be erected, and by the time this was done peace came, and the Kanawha Salines extended their works, down went the price of salt, and ruined all here."

The salines of Kanawha, in Northwestern Virginia, were first worked by the Indians and by the early white settlers to 1808. A large number of wells were subsequently sunk for a distance of ten miles along the banks of the Kanawha River. Within a few years past, wells have been sunk there to a depth of from one thousand to fifteen hundred feet, and the salt water that comes from the greatest depth is, in mid-summer, as cold as iced water, and the gas that rises from these wells is as cold as a northern blast on this continent in winter. This gas is turned under the kettles, and is burnt in the furnaces for boiling down the salt water and making salt. The tubes, through which the gas and salt water is forced from great depths, become coated with a white concrete substance, as hard as stone, and unless removed, like soot from a chimney, will close the wells in a few months. I have specimens of this incrustation, but have not yet analyzed it. The outer surfaces of the kettles, in the furnaces where the gas is burnt for fuel, become coated with a black, spongy substance that is very hard, and on being broken exhibits the appearance of a mass of vegetable roots. The gas is so abundant, and so powerful, that it forces the salt water to the height of seventy feet above the ground. The Kanawha brine contains bromine, the salt has a redish tinge, and is highly esteemed in the West. A large quantity of salt is made at these salines annually. Coal, in addition to the gas, is used under the kettles for fuel, and is found abundantly in the surrounding hills. When the wells were first sunk there, liquid petroleum in great abundance came up with the first discharges of salt water. The intense cold in the deepest wells at Kanawha presents the converse of the temperature of the deep artesian well at Grenalle, Paris.

In 1840, in deepening a salt well at Saltville, on the north fork of Holsten River, southwestern mountains of Virginia, a bed of salt rock was struck at the depth of two hundred and twenty feet from the surface, and a shaft sunk in it to the depth of one hundred and sixty feet. This deposit is under a strata of gypsum of thirty feet in thickness. The place in which this deposit was found is what geologists call a trough between

two mountains, and is near eighteen hundred feet above the level of the sea. New River, a tributary of the Kanawha, heads near this salt mine. The salt made of these mines is the best that is sold in any of our markets—it is a pure chloride of sodium.

No water was found in the shaft sunk in the salt rock, and they sunk a well at a distance of forty feet from it, and at the depth of two hundred and fourteen feet obtained an abundant supply of water, fully saturated with salt. They find it more economical to raise the salt water and evaporate it than to raise the salt rock, dissolve it, precipitate the earthy matter held in suspension, and then evaporate the clarified salt water. The supply of salt at these mines is very large—the Holsten is a tributary of the Clinch River, which is a tributary of the Tennessee River, affording the means of transportation to Tennessee, Alabama, Mississippi, etc., and the railroad, recently made in that part of the country, will afford an easy and cheap transportation to the East.

Thus it is seen, in this brief statement, how bountifully our country is supplied with the necessaries of life, and what progress we have made in bringing it into use.

In the year 1840, the importation of salt into the United States was eight million one hundred and eighty-three thousand two hundred and three bushels of fifty-six pounds, and six million one hundred and seventy-nine thousand two hundred and three bushels. The Virginian and Western bushel is fifty pounds; New York bushel fifty-six pounds, the same as the United States Custom-house bushel.

In 1840, the quantity of salt imported, and that manufactured together, was equal to fourteen million three hundred and two thousand three hundred and seventy-seven bushels, being equal to an apportionment of seven-eighths of a bushel to every man, woman, and child in the United States.

In the year 1855, the Onondaga Salines produced six million eighty-two thousand eight hundred and eighty-five bushels of salt, the largest quantity that has been made at these salines in any one year.

When Capt. Stansbury returned from the Salt Lake of Utah, I was at Washington, and had several interviews with him. He brought home some samples of the salt made there, but the salt water he lost by the carelessness of the express which brought it.

The salt pond in the Island of St. Martin's, W. I., produces salt that weighs ninety-pounds to the measured bushel; it has the transparency and hardness of alum, and is in pepper-shaped crystals of large size. The water of that pond has been reinforced by an earthquake; previous to that, a few years the saline supply was cut off by a similar convulsion.

Some of the salt mines on our globe are in the craters of volcanoes.

In the State of New York and in Canada West, at a point west of the Onondaga Salines, salt water is found in great abundance, and much of it has a specific gravity greater than that of the Dead Sea, or Sea of Sodom, and holds in combination so large a percentage of the deliquescing chlorides, calcium, and magnesium, as to render it unfit for antisceptic purposes.

The great Salt Lake of Utah is at a great elevation above the seaboard, while the surface of the Lake of Sodom, or the Dead Sea, is below the level of the ocean.

During one of the volcanic eruptions of Mount Vesuvius, a few years since, a beautiful arbor of marine salt was instantly formed by the fumes of the volcano.

Thus we see, in the production of salt, nature displays wonders that are instructive to the human mind.

From my immense gatherings of statistics in relation to salt, salt mines, salines, etc., I find it difficult to condense a statement within readable limits, but I trust this statement, brief as it is, will be instructive to those whose duty it may become to frame tariffs, and afford also facts of interest to the scientific reader.

The great Falls of Niagara, now in the bosom of a plain, have, underneath the great waterfall, and immediately beneath Table Rock, salt water of as great specific gravity as the water of the Dead Sea.

Art. VI.—CHINA TRADE.

RECENT EVENTS—DEVELOPMENT OF INTERCOURSE—AREA OF CHINA—POPULATION—DENSITY—LAND TAX—RICE—HORSES—CHARACTERISTICS—GOVERNMENT—TOTAL TAXES—FINANCIAL DIFFICULTIES—OPIUM TRADE—ACCUMULATION OF WEALTH—EARLY TRADE WITH UNITED STATES—IMPORT OF TEA—EXCHANGE OF TREATIES, THEIR EFFECT—FOREIGN TRADE OF CHINA—INTERNAL TRADE—TONNAGE—SALT—GOVERNMENT POLICY—FUTURE PROSPERITY—IMPORTS AND EXPORTS OF UNITED STATES WITH CHINA—BALANCE OF TRADE—INFLUENCE OF GOLD UPON PRICES—CHINA COTTON—SILKS—CONSUMPTION OF COTTON IN CHINA—PROGRESS OF EXPORTS THITHER—BRITISH COTTON EXPORTS TO ASIA—INDIAN COTTON—CHINESE MARKET FOR COTTONS—AMERICAN GOODS—COTTON COUNTRIES—INSURRECTION—MODE OF COLLECTING TAXES—SYCEE SILVER—BALANCE OF TRADE—DRAIN OF SILVER—EFFECT OF ITS RETURN.

THE recent events that have transpired in China mark a new era in our intercourse with that portion of the human race; interesting, not only on account of its antiquity and supposed wealth, but from the extent of its numbers; which, with the people of India, with whom a new state of intercourse is about to be developed, make up half the whole human race. The area of China is 1,298,000 square miles, and the population is given by Gutzlaff at 367,000,000, and confirmed at about that by other late writers. Comparatively with England and Wales, the proportion of numbers to territory would be as follows:—

	Area, square miles.	Population.	Acres per head.
England and Wales	37,812	18,065,634	2
China	1,298,000	367,000,000	2¼

Thus, even at the figures given, the population is less dense than in England. The census returns give, in some provinces of the empire, the population at an average of more than 700 persons to the square mile. But by the last census the county of Lancaster, England, had about 800 per square mile, not to speak of Middlesex, which has an average of 500, or of Surrey, which has about 700 per square mile. It is also to be observed that these densely peopled parts of China on the sea-coast, have been penetrated by Europeans, are well known to be very fertile, and in every way well fitted to afford a large amount of subsistance to their inhabitants. The Chinese returns of the land subject to tax, as used in rice cultivation, give nearly half an acre of such land to each living person; and we are assured that in the southern and well-watered provinces, it is anything but uncommon to take two crops of rice, one of wheat, and one of pulse from the same land in a single season. Now the whole arable

surface of England and Wales is said not to exceed 10,500,000 acres, which gives little more than half an acre per head; and they have also to provide for about 1,800,000 horses and cattle, and 8,000,000 sheep and swine. In China they keep few horses, the rude labor being performed chiefly by men; they have few cattle of any description; even their dogs they make serviceable as food; and their swine are fed only on such garbage as even they cannot convert to human sustenance in any more direct manner.

These Chinese are a quiet, peaceable, and docile race, being for the most part more free than Europeans from oppression of any description. They have never encountered feudal slavery in any of its forms, and consequently have not had to struggle against local customs and the privileges of an aristocracy, as has been the case in Europe, and with the white race generally. To this fact may, perhaps, be ascribed the absence of a progressive spirit, which has not been elicited by intolerable local oppressions. The theory of the government has been patriarchal. The emperor is the sire, his officers are the responsible elders of the provinces, as every father is of the inmates of his house, and the gradations of rank carry the imperial authority down to the smallest subdivision of the communities. The authority is felt, however, by individuals, in a very mild degree. The Mandschu government has never been extortionate of itself, nor has it varied the taxes materially. These are levied almost entirely upon rice grounds and salt; and the amount, according to the "red book" of 1842, was 150,000,000 taels, or about $200,000,000, which would be a little more than half a dollar per head each inhabitant. The chief expenditure is the army, which is estimated at 700,000 men, but is, in fact, nearly nominal. The present emperor succeeded his father in 1850, and he is the seventh of the Tsing dynasty, which was established on the conquest of the country, in 1675, by the Mandschu Tartars.

The discontent of the people, which has always existed to some extent, has of late years been stimulated by the manifest inability of the government to protect its subjects from plunder, either by bands of robbers in the interior, or by pirates on the coasts, but which was never openly and thus forcibly expressed, in a refusal to pay taxes wherever an overwhelming force was not at hand to compel payment, until the issue of the war with England gave the people to understand that the emperor was not invincible. The deficit on the last budget was some $75,000,000, and as the government has no credit, having at various times illustrated the value of its paper promises to pay by answering "bearer on demand" with the paternal bamboo, the resources commonly resorted to in such cases in the western world are not available.

One great cause of the derangement of the Chinese finances has been the opium trade, causing an immense drain of silver from China to India. This opium trade has, at the same time, been the chief support of the British Indian government. That which has been destroying China has been fostering India. The trade being illegal, is everywhere settled in silver, and the amount averages $6,000,000 annually. The "oozing out" of silver was one of the most potent motives of the late emperor for attempting the suppression of the trade. The financial difficulty, it was supposed, would cease if the trade should be legalized, by which the government revenue would be improved. The emperor replied, "Nothing will induce me to derive a revenue from the vice and misery of my peo-

ple." The new emperor, it appears, is less scrupulous—he has legalized the trade at 40 taels per chest duty. The average import was 50,000 chests per annum, at a cost of smuggling about equal to this duty; but the removal of the penalties for its use will immensely extend the sale. The duty will yield on 50,000 chests $2,300,000 per annum.

Those people, so long secluded from the "rest of mankind," under their own government, are supposed to have accumulated vast wealth in the lapse of ages; and the hope of participating in that wealth by commercial intercourse, has fixed the attention of modern traders. The trade with China was early commenced in the United States; but although those engaged in it found it lucrative, it was confined to few hands, and the annual value did not much vary, being restricted mostly by the quantity of tea consumed in the United States. In speculative years, when the prices of silks and teas ran high, the sum of the imports from China increased generally, causing a corresponding drain of specie, because the wants of the Chinese embraced few of the articles which the United States had to sell. In 1825, the imports were large, and fell off one-half with the panic of that year. In 1836, they had recovered the amount, and again declined with the revulsion, and continued to do so under the war between Great Britain and China; the result of which was to put the trade on an entire new footing.* Since the peace there has been much improvement, but the expectations then entertained have not been fully realized.

It is now about thirteen years since we exchanged treaties with China, putting us on a level with the most favored nations; that is, opening to us the five ports of Canton, Shanghae, Ningpo, Foo-chow, and Amoy. Since that time our trade with China has been steadily growing, until from 1850 to the present time it has averaged about $2,000,000 exports, and $10,000,000 imports. This is a small trade, considering the immense population of China; but there is reason to believe that it will now be greatly improved in both respects, since it is understood that the whole country is to be open to foreigners, and that the Amoor River is to be the boundary with Russia.

The whole foreign trade of China, like that of other countries, is but a trifle compared with its internal traffic. Comprising within itself the greatest variety of soil and climate, and penetrated in every direction by large rivers, aided by artificial canals, its domestic commerce is on the largest scale, and for a semi-civilized people, is almost self-satisfying in its completeness and variety. It has been asserted that there is a greater amount of tonnage belonging to the Chinese than to all the other nations of the world combined; and the number of the people constantly resident upon the water has been estimated at many millions. More than ten thousand barges are said to be employed in the grand canal and its lateral branches, for collecting and distributing among the public granaries the various grains paid in kind as taxes. At Tien-sin alone it was calculated that the depot of salt accumulated for the use of the capital and the northern provinces was sufficient for a year's consumption for thirty millions of people. But there is no occasion for resorting to statistics like these, granting them to be perfectly reliable, which they are not. The

* For elaborate articles on the trade of China, see the *Merchants' Magazine* for 1840, vol. iii., page 465; vol. xi., page 54; and vol. xxi., page 104.

very fact that the empire holds 400,000,000, with a density of population almost unexampled, says enough for the resources of the country, and of the inland trade necessary to equalize them by exchange of products. The people are exceedingly industrious, for it is the inexorable law of their being. But hitherto foreign trade has been discouraged by government, and the portion of it that has been carried on, estimated variously from fifty to one hundred millions annually, has been under disadvantages, weighing upon all parties. Being the mere surplus of the domestic supply, leaking out at five ports only, there has been scarcely an opportunity to stimulate a taste for foreign commodities among the people, and hence a balance against the foreign customer, and a drain of silver, severely felt throughout the more civilized world.

But if our ships can freely range the two thousand miles of sea-coast between Canton and the Gulf of Pechelee, and can have access to rivers like the Yang-tse-Kiang, said to water a country of a hundred millions of inhabitants, we may well anticipate more cheering results in the future. The natives will receive a new impulse both towards production and the consumption of foreign fabrics; and from a more intimate study of their peculiarities and wants, our manufacturers will be enabled to fit and stimulate their tastes. The Chinese will find that their country cannot produce all they want, as they have hitherto imagined, and will bestow an increasing share of their labor upon products destined entirely for the foreign trade. That these are capable of being indefinitely increased in amount is shown by the facts that the quantity of tea exported from China to England and the United States, within the last seven years, has been carried up from 65,000,000 pounds, in round numbers, to 131,000,000 pounds, and that the number of bales of silk exported to England alone, within eleven years, has been increased from 10,000 to 60,000. This evidence of augmented interest in the foreign trade, indicates that the people are ready to avail themselves of the privileges now thrown open. Competition in their principal markets, the proper regulation of trade by a superior system of exchanges, and all the influences which follow in the train of commercial enterprise, will do the work. We do not expect much, indeed, from a people of limited capacity and refinement, like all the present Oriental nations; but if there is anything that will both regenerate them and enhance their usefulness to other nations, it is free commercial intercourse, and that we are now to have with the Chinese.

In the *Merchants' Magazine* for July, 1853, will be found tables of the chief articles of import and export for the twenty previous years. Those tables we bring here down to the present date:—

	Cotton goods.	Specie.	Foreign goods.	Total.	Imports.
1852.....	$2,201,496	.....	$183,111	$2,663,177	$10,593,950
1853.....	2,831,259	.....	524,418	3,736,992	10,573,710
1854.....	963,283	$80,981	104,163	1,898,088	10,506,329
1855.....	588,521	606,651	186,372	1,719,429	11,048,726
1856.....	908,719	298,028	509,993	2,558,237	10,454,436
1857.....	1,094,018	295,913	2,375,230	4,395,130	8,356,932

The column "foreign merchandise" is nearly all silver; notwithstanding this remittance, it is observed that there existed yearly a large apparent balance against the United States, which was somewhat modified by the operation of the Pacific trade, northwest trade, and whalers, making sales in China, the proceeds of which reduced the balance; never-

theless a large balance remained, which was paid for in bills on London. But the East India opium trade always caused a demand for silver for that destination, which took, annually, $7,000,000 from China, consequently silver was, when abundant in the United States, as in the year 1831, a good remittance. The bulk of the transactions were, however, up to 1835, in bills of the late Bank of the United States, at six months, on London, when the removal of the deposits shook its credit. In that year the remittance of silver became large. Soon, however, individual bills became the better remittance, and the export of specie to China gradually subsided down to the influence of California gold upon prices generally. This has caused the value of imports from China to swell in amount, and as a consequence, to involve larger remittances in specie. In 1857, over $2,000,000 in Mexican silver went to China from San Francisco, with about $100,000 of quicksilver, which has become a large export from San Francisco. In the last three years Mexico has taken $1,500,000 of the metal, and the proceeds in Mexican dollars has been sent to China.

Up to 1841, more or less cotton goods were annually imported from China, which derived its cotton for the manufacture from India. That trade has ceased, and large quantities of United States cotton goods are now sent to China. It has also been the case in those years, like 1843, when prices here were very low, that a value of $179,000 raw cotton was exported from here to China, underselling the India cotton, a curious commentary upon the project to supplant United States cotton in Liverpool with Indian cotton. The importation of China silks has greatly varied. Up to 1842, a great variety were free of duty, and the balance paid 10 per cent. Under the tariff of 1842, a heavy specific duty was charged, and since 1846, 30 per cent *ad valorem*. There has been a steady increase in the quantities so imported, amounting to an exchange of New England cottons for Chinese silks. A considerable trade in lead was done at one time, but since the rise in its price, under the influence of gold, it has ceased to go to China. Breadstuffs and provisions have also shown a disposition to increase in quantity.

It is to be remarked in the trade of China, as with that of India, that thirty years since a leading article of import thence was cotton goods, "nankeens" mostly, which, in the then state of manufacture, could be furnished to this market and England, lower than domestic goods. Yellow and blue Chinese nankeens were a favorite wear. In 1822, the amount received thence was $800,000. From that date the receipts declined, year by year, until 1842, the last import was received, value $53. The progress of machinery and the arts in the production of cloths, began, however, to make itself felt in 1826, when the United States began to send white cottons to China, and that trade grew to $2,813,777 in 1853, which would represent about 20,000,000 yards of drills. The trade was then interrupted by the difficulties that have resulted in the present peace; but in the last three years the exports of drills hence has again increased, those of 1857, being nearly double those of 1855.

The large population of China is clothed mostly with cotton goods, and if it is assumed that the quantity used per head is no greater than that taken by each inhabitant of the United States, 30 yards per head, the quantity of cotton required will be nearly 10,000,000 bales, or three average United States crops. The cotton is raised in China by almost every farmer, and the goods being made by hand and rude machinery,

find a market in the large population of the cities; but the quantity of cotton raised in China having never been sufficient for the demand, a supply has been drawn from the British Indies, and were, at times, from the United States, in small quantities. It is obvious that were machine-made goods to come freely everywhere in competition with those goods, that the market would enlarge itself almost indefinitely. The exports of British calicoes to India and China have been as follows:—

EXPORTS FROM GREAT BRITAIN TO THE EAST.

	India.	China.	Total, yards.
1831.....	....	.....	27,873,835
1844.....	201,717,109	89,285,877	291,002,986
1856.....	477,951,101	112,665,202	590,616,603
1857.....	469,757,011	121,594,515	591,351,726
1858, six months.....	386,478,095	72,619,869	459,097,964

In 1831, the quantity of cotton imported from India was 35,178,625 pounds, and the weight of goods sent back as above, 9,000,000 pounds, leaving 24,178,000 pounds net of cotton supply derived from India. In 1844, the quantity of cotton received thence was 85,612,461 pounds, and the weight sent back in goods was 97,000,000 pounds, being a net export of 12,000,000 pounds of cotton to India derived from other sources. Of late years, the war in China, by curtailing the market there for India cotton, at the time that the raw material in Europe attained very high prices, the supplies from India have greatly increased. In 1857, the quantity received from India amounted to 253,516,000 pounds, and the quantity sent back in goods was 200,000,000 pounds, leaving a small supply from that quarter. In the first six months of the present year there has been received from India 56,525,000 pounds, or one-third less than for the same time last year, and there has been sent to Asia 150,000,000 pounds in goods, a loss of 94,000,000 pounds of cotton. It is thus evident that the growth of the trade with India has been merely a process of supplanting the home cloths of India with the machine goods of England—that is, carrying India cotton to England for the sake of carrying it back again in the shape of goods. In China a still more extensive field presents itself of the same nature. Thirteen years ago, when the five ports were opened, they in some degree facilitated the trade. In 1842, England and the United States sent thither 46,000,000 yards. In 1853, the United States sent 28,000,000 yards, and England 156,000,000 yards. The internal insurrections, and the renewal of difficulties with England, checked the trade. It is now the case, however, that all the ports and all the cities will be accessible to the dealers. A large export trade has already sprung up in these goods, and it is but reasonable to suppose the triumph of machine goods over the rude native manufacture will then be as marked as it has been everywhere else, and the only limit to the Chinese demand for goods will be the supply of the raw material. The United States are almost the only country which furnishes a surplus of cotton.

If we were to add to the quantities sent to Egypt, those sent to Syria and Turkey, the balance of cotton would be against that region. The Brazils buy more cotton by 40 per cent than they sell to England, besides what they get from the United States. It results, that for the supply of the English consumption, including all her colonies in North America, West Indies, Australia, and everywhere except India, as well as all the

European consumption, the surplus of the United States is the only source of supply. The demand for goods in Asia is, as we see, far greater than the surplus cotton they produce will make; yet a high English authority states that the outlay for clothing in India, with its 135,000,000 souls, is not 12½ cents per annum per head. It follows, that if the consumption, being now so low, is still greater than the cotton supply, what will be the result if the lines of railroads and other enterprises calculated to promote prosperity in Asia, should be successful? If they should enable those people to double their consumption of goods, will the cotton product rise in the same ratio?

The supply of goods to China must then devolve upon that country which can supply that style of goods the cheapest. It has been the case long since that the United States cottons can command the market anywhere over all other goods. Massachusetts drills have even founded a market in Manchester; and a steady market in China, backed by a Pacific railroad, promises to be an absorbing point for the United States crops. In 1853, the value of cottons sold China paid for half the tea importation, and the progressive increase in the consumption of that article by no means equals the prospective wants of China for clothing.

Next to tea, silk is the great article of Chinese production. It has received a greater importance since the damage done to the crops of Europe, has so affected the markets of the world, not only for silk goods, but the exchanges by drawing largely upon China for that article. The Chinese silks hitherto come of such coarse fiber as much to interfere with its usefulness. With a steady market, however, that objection may be done away with. In relation to the great use made of silk in China we extract the following from a late publication, mostly upon the province of Chekiang:—

"The women here dress their hair in a peculiar manner. In front it is brushed back as in the South, but the back hair is twisted in a roll, and bound tightly from the poll with black silk cord for a length of seven or eight inches. This is then turned up, like a horn, at the back of the head, and stands four or five inches above the crown, the hair being then turned round, so as to give it the appearance of a handle. In cases where, instead of being upright, the *horn* inclines to either side, the wearer has quite a jaunty appearance. In the spring of 1857 foreigners had not been seen before in this quarter, the curiosity exhibited by all on the occasion of the first visit being something extraordinary. The style of head dress spoken of is found to extend throughout the country from this to the River Tsien Tang.

"The quantity of silk used by each woman in binding this horn cannot be less than half a pound. Produced from their own cocoons, the cost will be trifling; but the appearance of such an exuberance of silk cord could not fail in inducing a reflection on the use of an article which, since trade has been released from the fetters that bound it prior to the war of 1840, has had so much to do with the currency and exchange of England and the whole mercantile world. Prior to 1844, the total quantity of silk exported from China did not exceed 3,000 bales a year; four times three thousand is now the average; and for the year 1856–7, the deliveries of China silk in England alone amounted to 74,215 bales.

"From inquiries made we find that this extraordinary difference in export is not effected on increase of production so much as on the inability,

(for want of means,) or the carelessness of the Chinese to indulge in the luxury, either as *tsien* for the tail, bands for the waist, or other form of indulgence; and our ruminations have led us to make the following calculation. Allowing the population of China to be 300,000,000, (doubtful,) and that each man, woman, and child uses a quarter of a pound of silk cord a year for a plait to the end of the tail, (a quarter of a pound, be it remembered, being a minimum quantity—some of the richer classes plaiting in several new *tsien* in the course of a year, these again using half a pound, and even a pound at times,) we find that the total quantity used, 75,000,000 of pounds, equals the weight of 750,000 bales. Estimating the price again at four pounds for a sovereign, we have, in the shape of a tax to carry out a whim imposed by the Tartars on their subjugation of the country, a total sum of nearly £19,000,000 sterling per annum—not far short of the interest on the debt created by our forefathers in England to carry on the wars.

"Whilst on the subject of Chinamen's tails, we may remark that the region in which we found the peculiar head-dress educing this note is that in which the natives exhibited, for a lengthened period, the firmest determination not to submit to the degradation of a tail; and that this feeling still rankles in the minds of the people was clear from the questions of several of them. Being taken for rebels in disguise, as a feeler one said—'Why do you not wear a tail?' (the rebels have discarded it.) *Answer*, 'Because it is not the custom in our western country'—'Why do you?' *Answer*, (*angrily*)—'Because the Tatsing dynasty insist on it!'"

A late English publication, following the trade of England with China in the same view, has the following remarks. In 1854, the trade between China and Great Britain stood as follows:—

Imports into China from Great Britain and India.....	$33,600,000
Exports to Great Britain and India.....	25,700,000
Balance.....	$7,900,000

"During the succeeding three years the exports to Great Britain have greatly increased. In the commercial year 1856–7, the export of teas to England and her colonies was 87,741,000 pounds, and the same year the deliveries in England of China silk amounted to 74,215 bales.

"The silk-exporting power of China seems to be without limit. Every year takes from her an annually increasing quantity. In 1843, there was not a bale sent. In 1845, there were 10,727 bales. In 1855, there were 50,489 bales; 1856 showed an increase of 50 per cent over 1855; and I am informed that if the Chinese succeed in establishing the prices now demanded, and in selling all their produce in stock, the money paid for China silk at Shanghae during the current year will certainly not be less than £10,000,000 sterling, 20, 40, 60, 90, 140 are figures of rapid progress, yet they represent the advance of our silk imports from China. At the prices now paid you may, I believe, double this last quantity in the year to come. I do not understand, however, that by stimulating the production you can greatly decrease the price. We have, I believe, found by experience, that however abundant the corn crop may be in America, there is a price below which it will not be brought down for export, but can be profitably employed at home; so of China silk. You have to compete as buyers with such an enormous population of home consumers, that any extra production to meet our demands may be thrown, without

great effect upon the home market. By improving the present faulty system of winding you may perhaps make the silk more valuable, but if you take treble your ancient quantities, you must pay treble your former quantity of silver, and so far increase the balance of trade against you."

The continued high prices of silk in Europe would, undoubtedly, not only improve the mode of preparing the Chinese silks for market, but draw forth the largest supplies, and of a quality less heavy than that at present derived thence, as all goods are made to adapt themselves to the market of sale. It is still in the minds of many, how great the difficulties were, on the opening of the British provision trade in 1842, encountered in adapting American beef and pork to the English market; not only the mode of packing, but fattening and killing, were required to be changed before the trade was established. With silk, these difficulties are more easily overcome.

The settlement of the insurrection will no doubt, if that is possible, tend greatly to promote trade, but whatever may be the result China will henceforth be open to trade. The legalizing of the opium trade may also obviate the necessity of paying for that article in silver; but the quantity of silver now in China will be set free to circulate in exchange for the gold flowing in. The quantity of silver in China must be pretty large, it being the exclusive medium for payments to the government. The dread of change, which has been generally considered as the leading characteristic feature in the domestic, as well as foreign, policy of China, has extended in its full influence to the circulating medium of the country. The government was determined that its coffers, at least, should suffer no defalcation by depreciation of the currency; and hence the imperial taxes and duties are required to be paid in pure silver. In every large town are *yin teen*, or "money shops," the inferior class of which are establishments of money changers and shroffs; the more respectable are private banks. Of the latter class, every officer who has any superintendence of the revenue, employs one or more to receive the taxes and duties, with a fixed allowance for loss in melting, and having reduced them to sycee silver, to become responsible for the purity thereof. The establishments which are thus connected with government are licensed, a privilege for which they have to pay, but not largely. They are remunerated by the surplus allowance for waste, which always exceeds what is necessary. Taxes are generally handed over to them by the government; mercantile duties are frequently paid into their banks by the merchants from whom they are owing, and the banker in such case gives the merchant a receipt for the amount, accompanied by a certificate that it shall be paid to government within a certain period. The refined silver is cast into ingots, and stamped with the name of the banker and date of refining. Should any deception be afterwards discovered, at whatever distance of time, the refiner is liable to severe punishment.

The silver ingots, denominated sycee silver, are cast in an oval form, and as the metal cools it sinks in the middle, making something the form of a shoe. The usual weight is ten taels each, or twelve ounces, and some that have been assayed at the United States mint give 982 thousandths fine. This is the finest of the sycee, of which there are five descriptions. That already described, and which is sent to Pekin; the second, that taken for land tax; the third comes in pieces of fifty taels each; the fourth, of a low standard, used for the salt tax; and a fifth,

much debased. Bearing these facts in mind, and also that China is a silver-producing country; that the export of it is illegal; that there are 367,000,000 souls, and that the revenue, all collected in this silver, is $200,000,000 per annum, sent in ingots to Pekin, after deducting the local expenses, and the inference remains that the quantity of silver in China, the accumulation of tens of centuries, must be immense. That stock is now apparently about to be added to the circulating stock of the commercial world, after hoarding and distrust, caused necessarily by the civil war, shall have passed away.

It is not improbable that the balance of trade will again be against China as before the opium war, and cause the current of silver again to set outwards to come in competition with the continued streams of gold that pour into the European markets. Such an event would at once give full force to the supplies of gold that have been derived from the mines. Hitherto it is known that the anticipated effect of gold, in appreciating all other values, has not taken place, for the reason that the aggregate mass of money in Europe has not been much increased. The demand for silver for the East has been almost equal to the supply of gold, and the latter has found employment in the channels of currency vacated by the exported silver. If, now, owing to the change in Eastern affairs, the current of silver is set back upon Europe, while the gold current continues to flow inwards, all the influence of the gold discoveries must be felt with redoubled force, and the depreciation of gold, so long looked for, be more extensively experienced. In the last six years $250,000,000 in silver have been drawn from Europe to the East, and its place has been filled with the gold. If, now, $200,000,000 in silver is to come back from the East, to meet in the next six years' $600,000,000 more gold from the mines, the accumulation of the mixed mass will produce that depreciation which the most sanguine looked for some years since. This financial effect, it seems now possible, may flow directly from the opening of the internal trade of China and India, because numerous wants may be discovered in these people which can be supplied by other means than by silver.

The future operations of trade cannot, indeed, be measured by those which have been in action since 1844, because the five small ports in the tea districts cannot have furnished those facilities that must flow from direct communication with the large cities of China. A late visitor to Pekin thus describes the city which was so long a sort of geographical myth:—

"On arriving at the capital of the Chinese Empire we find a city containing about two millions of inhabitants. Such is the estimate. but doubtless the calculation is made in the usual spirit of Eastern exaggeration. Be that as it may, the walls are fourteen miles in circumference, twenty-eight feet high, twenty-four feet thick at the base, and twelve at the top. There are spacious towers all around, at seventy feet distant from each other, and at the gates are look-out barracks for the soldiers nine stories in height. The metropolis is divided into two parts, one inhabited by Tartars and the other by the Chinese. In each there is a street four miles long and one hundred and twenty feet wide, and the emperor's palaces and gardens occupy two-thirds of the Tartar city; and all this besides the suburbs, which are nearly as populous as the city proper.

"Pekin is located sixty miles south of the famous Chinese wall, and therefore much exposed to northern and hostile neighbors; yet its forti-

fications are strong, and, until the vast machinery of modern artillery, was perfectly secure in his palatial halls, the walls, bastions, and towers being impregnable in ancient times. Although the country about Pekin is sandy and unfertile, yet provisions abound, being brought by canals from all the great rivers; and also with its commerce, the merchants being paid in money, as the capital is the chief recipient of the revenues of all China. It has ever been regarded as a very exclusive place, the presence of no foreigner being permitted within its walls; but now the outside barbarians are in a fair way of overleaping the sacred boundaries; and it is probable that this act, together with the opening of Japan, may prove an important step towards the inauguration of Christianity among the millions who are now benighted in Pagan idolatry and superstition."

Art. VII.—THE BANKING AND CREDIT SYSTEMS.

To the Editors of the Merchants' Magazine:—

On further investigation, I found, after sending off the manuscript of the article contributed by me to your September issue under the above caption, that I was in error regarding the time and circumstance of the commencement of the prevailing currency system—the organization of debt into currency through the medium of a bank. I had depended upon the authorities of Adam Smith and McCulloch, that happened to be before me at the time, both of which state that the stock of the Bank of England was increased only £3,400,000 to purchase the South Sea annuities, amounting to £4,000,000. They say nothing of the premium paid on that subscription.

In Francis' "History of the Bank of England" I find the following account of this transaction:—"In 1722, the South Sea Company were allowed to sell £200,000 government annuities, and the Bank of England took the whole, at twenty years' purchase, at a price equal to par. To meet the payment, amounting to £4,000,000, their corporate capital was increased £3,400,000 by £3,389,830 10s. being subscribed for at 118 per cent. By this transaction the bank made a profit of £610,169 10s., and the capital amounted to £8,959,995 14s. 6d." Thus was formed the reserved fund, "which, under the name of REST, has increased with the business of the house, and has frequently proved of invaluable service."

This is a perfectly clear explanation of what appeared to be a deficiency of subscription for the purchase of the South Sea stock. We find it to be the commencement of the celebrated "rest," designed, as it has proved, to be a security for an unfailing dividend to the stockholders of the bank. Pursuing the investigation, I find the bank plunged into the debt-currency system, loaning its debt without capital in hand, as deeply as possible, at the very beginning of its existence. Its early operations are described by its friends so plausibly, and with so much sophistry and word twisting, that, as there are no publications of its opponents to be found, the casual reader would never suspect that this famous bank went into operation with almost no capital at all, and so continued for several years; but such is the fact. It was at first an engine, ingeniously adapted to operate

with the loyalty and religious enthusiasm of the English people in favor of the Protestant succession of William and Mary; to carry on the war against Catholic France, in the endeavor of Louis XIV. to restore the exiled Stuart, James II., to the British throne. Its efficient aid in securing the successful result of the seige of Namur, in 1695, was universally acknowledged, and thereby it gained great popularity. Its first deputy Governor, Michael Godfrey, was killed in the trenches before that place by a cannon ball, in the presence of the king, after having conducted a remittance of specie to the camp. But it was by the sophistical application of the terms "capital" and "money" that people were induced and deluded to accept its notes and credits, which were nothing but debt in a form more convenient than the tallies of the exchequer, for which they were exchanged.

Before the establishment of the bank, "tallies," according to a writer of that day, "lay bundled up like Bath faggots in the hands of brokers and stock jobbers." And they were faggots, neither more nor less. These tallies were sticks, with the indebtedness of the government scored upon them in notches; the stick, or faggot, was then split lengthwise through the notches—one half given to the creditor, and the other retained in the exchequer. When payment was demanded, it became necessary to match the two halves into a perfect whole again, as the voucher of the claim. This form of obligation, however inconvenient in other respects, must have been very secure against counterfeiting. I can conceive of nothing more difficult than to match one-half of a faggot, thus torn in two, with any other than the original piece.

The oldest account of the bank, I think, is the following, taken from a rare pamphlet, published in 1695 by Michael Godfrey, who was killed the same year in the trenches before Namur, as before stated:—"The bank is a society consisting of about 1,300 persons, who, having subscribed £1,200,000, pursuant to an act of Parliament, are incorporated by the name of the 'Governor and Company of the Bank of England,' and have a fund of £100,000 per annum granted them, redeemable after eleven years, upon one year's notice; which £1,200,000 *they have paid into the exchequer* by such payments as the public occasion required, and most of it long before the money could have been demanded." * * * "There was a proviso in the act, that if £600 000 or more of the said £1,200,000 should not be subscribed on or before the 1st August then next coming, that the power of making a corporation should then cease, and the money be paid into the exchequer by the respective subscribers and contributors." The subscription, however, was taken up in ten days' time.

Noticing the objections to the bank, the same authority proceeds:—"Some find fault with the bank because they have not taken in the whole £1,200,000 which was subscribed, for they have called in but £72,000, which is more than they now have occasion for. But, however, they have paid into the exchequer the whole £1,200,000 before the time appointed by act of Parliament, and the less money they have taken in to do it with so much the more they have served the public, for the rest is left to circulate in trade, to be lent on land, or otherwise to be disposed of for the nation's service."

All this looks very fine in words; we will put it into figures by and by. I think it must have puzzled the clerks of that day to tell how a bank

could pay into the exchequer £1,200,000 with a capital paid in of only £72,000. We understand the thing now, however, by extensive practice in getting up modern banks. Freshmen in college are in the habit of exercising themselves in logic somewhat thus:—"No cat has two tails. One cat has one tail more than no cat; therefore, one cat has three tails." There seems to be no occasion to dispute such a wise conclusion. It is precisely as indisputable as the logic of the proprietors of the Bank of England, that was so satisfactory to the Protestants of England on its establishment, which built up a huge corporation at the cost of the people, and sowed the seeds of the present oppressive and irredeemable public debt.

"Francis' History continues:—"The corporation *were not allowed to borrow or owe more than the amount of their capital*, and if they did so the individual members became liable to the creditors in proportion to the amount of their stock. The corporation were not allowed to trade in any goods, wares, or merchandise; but were allowed to deal in bills of exchange, gold and silver bullion, and to sell any goods upon which they had advanced money, and which had not been redeemed within three months after the time agreed upon. The whole of the subscription was filled in a few days, *twenty-five per cent* paid down, (!) and a charter was issued on the 27th July, 1694." * * * * * *

"When the payment was completed, it was handed in to the exchequer, and the bank procured from other quarters the funds which it required. It employed the same means which the bankers had done at the exchange, with this difference, that the latter traded with *personal property*, while the bank traded with the *deposits of their customers*. It was from the circulation of a capital so formed that the bank derived their profit. It is evident, however, from the pamphlet of the first deputy-governor, that at this period they allowed interest on deposits, and another writer, D'Avenant, makes it a subject of complaint. 'It would be for the general good of trade if the bank were restrained from allowing interest for running cash, for the ease of having 3 or 4 per cent without trouble must be a continual bar to industry.'"

Gilbart, in his treatise on banking, says of the Bank of England:—"The corporation were to lend their whole capital to government, for which they were to receive interest at the rate of £8 per cent per annum, and £4,000 per annum for management, being £100,000 in the whole. They were *not allowed to borrow or owe more than the amount of their capital*, and if they did so the individual members became liable to the creditors in proportion to the amount of their stock."

Now examine the following statement from Lawson's "History of Banking," page 44:—

"On the 4th December, 1696, the governor and directors of the bank attended at the bar of the House of Commons, and presented to the house a statement of their affairs, as follows:—

DEBTOR.

To sundry persons for sealed bank bills standing out.....	£893,800	0	0
To sundry persons on notes for running cash.....	764,196	10	6
To moneys borrowed in Holland	300,000	0	0
To interest due on bank bills standing out.....	17,876	0	0
To balance.....	125,315	2	11
Total.....	£2,101,187	13	5

CREDITOR.

By tallies in several Parliamentary funds	£1,784,576	16	5
By one-half year's deficit of fund £100,000 per annum.....	50,000	0	0
By mortgages,* pawns, securities, and cash.....	266,610	17	0
Total.....	£2,101,187	13	5

* This item includes £35,664 1s. 10d. cash, which, it appears, was all the bank had on hand to pay their notes, amounting to £1,657,996 10s. 6d."

The reader, if accustomed to accounts, will probably inquire—where is the capital in this statement? All there is of it is in the balance of £125,315 2s. 11d. This covers capital and contingences. Undoubtedly all the capital paid in at that time was the £72,000 mentioned by Godfrey. Francis must have been mistaken in saying that 25 per cent was paid down, which would have been £300,000 to appear in the balance. The bank had done a magnificent business for two years. The tallies bore an interest of 8 per cent per annum, and the bank was allowed 8 per cent per annum on £1,200,000—of which it furnished but £72,000—besides £4,000 for management. It had paid the heavy expense of its charter and establishment, and 8 per cent per annum dividends for two years to its stockholders, for no "capital" but their name, excepting the £72,000, and had £125,315 2s. 11d. left.

For the loan in real cash of £72,000, the bank aggregated interest at the rate of 8 per cent per annum on the subscribed capital of £1,200,000, and allowance for management.....			£100,000	0 0
On exchequer tallies, mortgages, pawns, &c..	£1,951,187	13 5		
Less cash on hand	35,664	1 10		
	£1,915,523	11 7		
Of say 5 per cent net, after deducting interest allowed on outstanding notes.....			95,776	3 1
			£195,776	3 1

There seems but little reason to doubt that their gross income on £72,000 actual capital was about £200,000 per annum. I believe this bank was the first to call debt "capital," and give the name of "money" to convertible *promises to pay*. It appears unaccountable that a people can be so deluded as were the people of England then, and as the people of this country are now. They were lending capital to the bank in holding the bank notes, while they fancied the bank was lending them money, and were paying monstrous charges to the bank for the loan of their own capital. We are doing the same with our banking system at this time; it is but a continuance of the system of the Bank of England.

I shall not attempt to reconcile the statement that "the corporation were not allowed to borrow or owe more than the amount of their capital," with the figures as presented by Lawson, for it cannot be done. The truth is, the bank and the government were in partnership, both knowing that they must sink or swim together, and the method by which they obtained means from the people to carry on the wars of that period, and make profit for the bank at the same time, would not then, and cannot now, bear an honest scrutiny.

This seems to have been the discovery of the speculative Scotchman, William Patterson, who projected the Bank of England; that by calling a bank note "money," and promising that it shall be convertible into

gold and silver on demand, the people will accept it as money without wishing to convert it, that they will lend their own labor and capital to the bank, and furnish the bank means to pay the note before they have occasion to demand payment of it themselves. Through the sophistical arrangement of this business people do not discover its nature, and usually submit to its impositions without inquiry, but it is only under favorable circumstances that they escape trouble with it. Accordingly, there have been frequent panics and difficulties with the Bank of England. In 1696, the second year of its existence, it stopped payment on its notes in consequence of the recoinage of silver. As the new coin was supplied by the mint this difficulty was soon remedied, but other pressures and runs upon the bank succeeded, until in 1745 it came near being wound up altogether by the invasion of the Pretender Charles Edward. On his entrance into Derby, 120 miles from London, the run upon the bank for payment of its notes drove the directors to the subterfuge of paying in shillings and sixpences, and of employing emissaries to obstruct the access of the creditors of the bank to the teller's counter. These emissaries presented notes, which were paid with as much delay as possible, then passing out of one door and in at another they redeposited the money, took fresh notes, and repeated the operation. By this *ruse* the bank avoided the suspension of payment, officially, and the directors took much credit to themselves for such sharp practice. A greater relief, however, was afforded by the retreat of the Pretender from Derby. If this had not taken place immediately, the bank would have stopped payment, and probably would have been broken up altogether; crises have occured with it periodically ever since.

In my September communication I was therefore mistaken, in point of time 28 years, with respect to the commencement of the present system of organizing debt into currency; but I was not mistaken in attributing it to the Bank of England. It was the very principle of its existence—began with it in 1694, and has continued with it to the present day, checked only by such restraint as Sir Robert Peel was able to put upon it in the Bank Charter Act of 1844. By that act the issue of notes on debt security is limited to £14,000,000, which security includes the public debt, constituting the capital of the bank, and some other public dues. Every pound issued in notes beyond this sum must have a sovereign deposited and retained against it. But this limitation principle is not applied to the deposits, which can be increased by discounts indefinitely, excepting the restraint naturally imposed by the export demand for specie. The limitation of issue of the notes is a movement in the right direction, but, with the credits for discounts left untrammeled, it is quite ineffectual to prevent the expansion and consequent degradation of the currency of the kingdom, by which the precious metals are expelled to the continent and to Asia as fast as they are received. This leaves the nation dependent upon debt for the transaction of business, like ourselves, with the exception of the smaller class of traffic, for which cash is secured by the restraint upon bank issues below the denomination of £5.

The truth is, there can be no compounding or tampering with this principle of debt in the currency without serious damage. If it were good, we could not have too much of it, but it is evil continually—unmingled evil—and the first dollar of it is too much.

With $1,000 of real money we know that, by ten removes or ex-

changes, merchandise to the aggregate amount of $10,000 may be sold without debt or embarrassment; while the absence of the $1,000 of money makes it necessary to sell that amount on credit, notes being created and discounted at bank, one to meet the other, through the whole of the exchanges, till ten separate parcels of debt, of $1,000 each, stand subject to an alteration in the exchange value of money, perhaps four to eight months, and liable to be knocked down, like a row of bricks, on the application of the screw—the power of contraction of bank loans. This is our system, and this is what we experienced last fall.

Now, had we bought $1,000 of gold, to begin with, and retained it, by the sale of two hundred barrels of flour, the wheat grower and the miller would have been thankful for the privilege of producing two hundred barrels more; it would have sped the plow, furnished additional employment to labor through the whole production, been a clear gain of $1,000 capital to the country, increased trade, and, of course, wholly prevented the bankruptcy and distress resulting from the circulation of property to the aggregate amount of $10,000 without it.

What worse than folly, therefore, is the argument of the anti-bullionists, that a country gains by the use of a cheap medium of exchange! That as paper is cheaper than gold, so is the gain to the community in the substitution and use of paper promises and bank credits for money! We should repudiate this doctrine utterly, for it is clearly pernicious and false. What item of wealth can we possess of more utility and value than the commodity which accomplishes our exchanges without debt, and secures us from bankruptcy? and what thing is more worthless than the paper substitute that limits our production and traffic, and entails such wretchedness upon the country as we witness in every bank revulsion?

We want freedom from the present, constant, wasting care of debt; we want heart and spirit unoppressed, to labor with some certainty of reward. These we cannot have while DEBT sits like a Briareus in the center of our system of currency, grasping with its hundred hands all the methods and operations of trade.

I have not any doubt that an inconvertible paper currency, such as governments have issued from the earliest periods of history, is less injurious to the community than the convertible debt currency introduced by the Bank of England; for the inconvertible currency soon falls into line with the marketable stocks of the exchange, and is sold at a discount according to its estimated value. Real money, gold and silver, has a value independent of it—is not degraded by it, but measures its price as it measures the price of other property. A depreciated stock may serve as a medium of exchange, it may be bartered like any other property without being money, and may sink to nothing in the hands of its possessor, as most of the paper currencies of the governments of the world have done, without causing the export of an ounce of gold, or the loss of a dollar of capital to the country. Government paper, passing at a discount, or inconvertible on demand, is nothing but government debt—the same as government stock in principle and effect. The funded debt of England has none of the power or influence of currency.

But the convertible bank debt of notes and credits, formed by discounting a counter debt, is a very different thing. Although pure kiting, it amalgamates with the mass of the currency, and reduces it all in value, without being mingled with it in substance. It is a worthless alloy that

costs us solid gold. The foreigner will sell us his goods at the value we put upon the mixed currency, and he will leave our domestic products on our hands at the fancy prices created by it; he will take none of the mixture away, but, separating the dross from the substance, he leaves the dross with us, at the value we put upon it, and takes the solid gold.

By a *cabalistic* use of the terms "capital" and "money," the wily Scotchman, Patterson, was enabled to impose a prodigious tax upon the people of England, for the benefit of his corporation, without their knowledge. The bank reaped its harvest from fresh soil, having the field to itself, aided by all the warlike and religious prejudices of the nation, and the corporation were thereby enabled to sustain themselves, for a time, upon a foundation that would disgrace a Western wild-cat bank of our country at the present day.

The establishment of the Bank of England was greatly promoted by the extortions of the goldsmiths, who were the previous bankers of the kingdom. For anticipating the taxes, in loans to the government, they frequently obtained interest at the rate of 20 or 30 per cent per annum. They had been plundered by the Stuarts, who had a habit of taking money by the strong hand, and, not yet being entirely confident of prompt returns, they made the new government pay for the perfidy of the old. They loaned money, however, and not debt. The distinction between their dealings and the dealings of the bank is explained by Francis, as already quoted :—"The bankers traded with *personal property*, while the bank traded with the *deposits of their customers*. It was from the circulation of a capital so formed that the bank derived their profit."

The clipped coins with their uncertain value, the extortions of the goldsmiths, the bad credit of the government, and the exhausting war with France, would seem to have called for the establishment of some financial regulator as an urgent necessity to England, in the latter part of the seventeenth century, but a *true bank*, established by authority of the government, to aggregate *real capital* for public and private uses, was the fiscal agent needed, and not the *debt factory* contrived by William Patterson.

Prices would then have conformed as they now conform to the volume of the currency offered for investment in the transactions of the day—as money is thrown upon, or withdrawn from, the market, they rise or fall. What possible benefit would flow from the possession of fifty times as much money or currency as constitutes our current medium of exchange to-day? Flour, now five dollars, would then be two hundred and fifty dollars, per barrel, and all other commodities and property would be in the same proportion. Not a fraction more of business could be done with the whole of it than we do with the more limited currency now—not a dime more of *value* or wealth should we possess; we should have only the same property measured in *price* by a cheaper currency. But every intelligent reader must see at a glance that we should operate at an immense disadvantage with such high prices. Where one pound of gold will now discharge a balance of account at home, or adjust exchanges with a foreign country, fifty pounds would need to be transported. It would require more than one cart and horse to make the exchanges of the Clearing house in New York, and fifty times as much labor and expense in adjusting balances with gold every-

where. To carry gold change in one's pocket, sufficient for the ordinary pocket expenditure, would be out of the question.

Our best interests, the activity of business, the accumulation of capital, the absence of debt, and the prosperity and happiness of all classes in this country, depend upon our having never more, but always less, money or currency than any other people in relation to commodities. That we cannot always maintain this relation I know very well—the production of gold in California is against us. But it is suicidal to increase the currency a dollar when it can be avoided. We want a more valuable currency than any other nation, and this we can have by reducing or restricting its volume, or by increasing commodities. We want low prices for commodities, and a high exchange value to money. We want to sell commodities to other countries, which we shall always do when our currency is more valuable than theirs; for so long we are sure of an average of lower prices. Cannot our intelligent merchants be made to understand that we are better circumstanced with one dollar now than we should be with fifty dollars if the currency were increased fifty fold? Cannot they see that when an ounce of gold buys more of the product of labor here than anywhere else, we have the commerce of the world at our command?

This will be seen. The science of political economy will not always be neglected by merchants, and left in the hands of closet students. The industrious nation, cultivating with intelligence the arts of peace, which shall first repudiate the convertible debt system of the Bank of England, and the doctrines of Adam Smith, John Stuart Mill, and the other anti-bullionists of England regarding paper money, and so shape its policy as to give the highest possible value to its currency, will infallibly get advantage of the commercial world. C. H. C.

Art. VIII.—QUARANTINE REFORM.

Two years ago, immediately subsequent to the malignant effect of the New York Quarantine Establishment on the Long Island shore, there seemed to be but one opinion as to the propriety of its removal to a less populous neighborhood, and less dangerous situation. But before legislation could be had, such influences were brought to bear as only resulted in the enactment of a subterfuge which has permitted the "establishment," with all of its odious appurtenances, to continue its death dealings to such as are so unfortunate as to come within the scope of its influence.

The recent destruction of the buildings appropriated to quarantine purposes, is but one of thousands of other evidences of the worse than useless laws which impose confinement on *well persons*, under the absurd notion that they may propagate disease.

In a paper on this subject two years ago, (see *Merchants' Magazine* for October, 1856,) it is stated "that there is no disease to which mankind is heir, contagious or non-contagious, which may not be aggravated by the infliction of quarantine, and quarantines are necessarily dangerous and disease-producing in proportion to the strictness with which the laws that govern them are enforced. That there is no disease compatible with cleanliness, which may occur at all, that can be otherwise influenced than aggravated by the quarantine of persons."

By the destruction of the quarantine buildings on the evening of the 1st of September and since, many persons, whose liberty was limited to the extent of the walls, have been suddenly forced upon the community with all the dangers of "recent exposure," yet there is not a single instance of any disease having been propagated by them, while they have been relieved of the danger of contracting disease from the establishment.

The quarantine regulations of the United States are, as a whole, the rewritten laws of semi-civilized barbarians, enacted against plague and other diseases originating and spreading in filth, and are no more suited to the present state of civilization than would be the dwellings, storehouses, and ships of London previous to the great fire of 1666, to the present wants of commerce.

As long ago as 1784, New York had an "act to prevent" the spread of such diseases as have never prevailed here, or against the extension of such as owe their existence to causes where they usually do prevail, to other places where like causes do not exist, and, consequently, where the same diseases never prevail, whether there is quarantine or not.

The United States laws, on the subject of quarantine, make those of each port supreme, and United States vessels, as well as all others, are obliged to submit.

The present laws of New York require all vessels last from places where epidemic diseases existed at the time of departure, or in case any such disease has existed on board during the voyage, if between the 31st of May and the 1st of October, to remain at quarantine *at least thirty days after their arrival, and at least twenty days after their cargo shall have been discharged, and such further quarantine* as shall be prescribed.

All vessels arriving between the 1st day of April and the 1st day of November, and all from foreign ports, on board which *any person shall have been sick!* and all from south of Cape Henlopen, from the 31st of May to the 16th of October, and all from *any place* in Asia, Africa, the Mediterranean, West Indies, Bermudas, Western Islands, or any place south of Georgia, between the 1st of April and the 1st of November, shall be subject to such quarantine as shall be prescribed.

Any vessel may be ordered from the wharfes of the city to the quarantine ground, and *all persons* and things introduced from any such vessel may be seized and returned on board or removed to the quarantine. All cargoes, matters, or things within the city, that may be *putrid, or otherwise dangerous to the public health*, may be ordered to the quarantine ground. And all persons in the city, not residents thereof, who may be sick of an epidemic disease, are subject to being removed to the hospital at quarantine.

The New York quarantine, thus *legally* constituted, further provides that *every vessel* from any foreign port having passengers on board shall stop there, and in case there has been any epidemic disease on board, showing that in all probability the condition of the vessel is such as to render the passengers peculiarly susceptible to any prevailing source of disease, she shall in that case be detained at quarantine! And any vessel, on board which *any person has been sick or died*, is obliged to anchor at quarantine, and there await the directions of the health officer, and all fellow-passengers of any such persons are required to remain at quarantine until fifteen days *after the last case of disease* shall have occurred on board the vessel in which they may have arrived, and *ten* days after arrival at quarantine.

It is surely not surprising that a place thus constituted, on the main entrance to New York, in a populous neighborhood, should become obnoxious not only to those living in the immediate vicinity, but to all who have taken pains to investigate it, and to observe numerous other countless abuses which are currently practiced by those who have controlled it.

During the harvest of the New York quarantine in 1856, an individual affected with pulmonary disease, a resident of the State of New York, on returning from a tour for the benefit of his health, was taken from a healthy ship to the quarantine hospital, and there "detained" during the pleasure of those who get *a fee for the removal*—(of invalids and those who are detained to become invalids)—for "if this were not done," said the visitor, "the ship would have to be detained." She was less than thirty days from Liverpool, and in a perfectly healthy state.

Such examples of quarantine practices are so common that it is rarely the case that one cannot be selected in illustration, during any such period, as the greatest extremes are then palmed off as necessary strictures for *the protection of public health!*

On the 15th of April last, the United States steamer Susquehanna arrived in an infected condition. Captain Sands chartered two steamers, and was about proceeding to do everything possible, *immediately* on arrival, to ventilate the ship and promote the health of the crew, but his intentions were speedily nipped in the bud by his being placed under arrest by the Health Officer.

The crew of the Susquehanna were shortly after "removed" at the usual rates to the quarantine grounds, and subsequently "removed" *again* to the Battery, by orders of the Health Officer.

Meanwhile the ship, with stores, &c., *still on board*, was anchored with the following crew, at the rates corresponding:—

15 men at $18 per month	$170
1 engineer, U. S. N., per month	125
6 engineers at $90 per month	540
6 policemen at $90 per month	540
A tender at $100 per month	400
Rations per month, about	300
Per month since 1st April	$2,075
Which, for five months, is	10,375
Besides which, incidental expenses have been paid by the government, amounting to	7,585
Up to September	$17,960

It is, however, due the Health Officer to state that, *on the 18th of June*, after hot weather had fully set in, and the infectious influences of the Susquehanna had attained their height, he *then* called the attention of the Board of Health (*himself*) to the infected ship Susquehanna, and they (*himself*) having duly authorized the Health Officer to carry out *his own restriction*, he sent a peremptory *order* to the Commandant of the Navy Yard to break out the Susquehanna without delay! But—

1. "Every vessel arriving at any port in the United States shall be subject to the quarantine regulations of the port.

2. "It shall be the duty of the officers of the revenue cutters to assist in carrying into effect the quarantine regulations of the several ports, under the direction of the Secretary of the Treasury.

3. "It is the duty of all licensed pilots to place in the hands of the

commanders of all vessels they may board, copies of the quarantine regulations of the port, and of this act.

4. "Any person violating the provisions of this act shall be liable to a fine not exceeding $1,000, one half to the United States, the other half to the informers."

In 1832, when it was feared cholera was about to make a port of entry in the United States, there was a committee appointed in Congress to keep it out! And after much correspondence with different "boards of health," the law above quoted was passed. And when the Health Officer of New York wished to stop the progress of Captain Sands in his efforts to place the Susquehanna in a healthy state as soon as possible after her arrival, it was in full force, but after the ship had lain two months, the weather become hot and her condition manifold more dangerous for any one to work on board or in the vicinity, above all to such as were unacclimated to the condition, as was not the case with the crew when the ship first arrived, the Health Officer then stretched a point and ordered the commandant of the navy station to have the ship broken out. Now, the commandant of this naval station is an old cruiser, and he knew, *if* the Health Officer did not, that to send raw hands on board the Susquehanna in her then condition would be likely to cause them to contract yellow fever, and, at least, aid in spreading a panic, which would be no advantage to him, the commandant, which would in its turn be the means of enforcing a strict quarantine, and cause a great many passengers and ships to be "removed," "detained for observation," "placed under strict vigilance," etc., etc.—"necessary for the preservation of public health."

In view of all this, and *more too*, the commandant disobeyed orders, and the Health Officer still commands the frigate Susquehanna.

It is pertinent to this transaction to inform those, who may not find it convenient to inform themselves, what constitutes the Board of Health of the city of New York. "The Mayor and Common Council *when acting* in relation to the public health of the city of New York, shall be known as the *Board of Health*, of which ten members shall be a quorum. The President of the Board of Aldermen, the President of the Board of Assistant Aldermen, the Health Officer, the Resident Physician, the Health Commissioner, and City Inspector shall be the *Commissioners of Health.*

The duty of the Mayor, in this capacity, is to *render advice* to the Board of Health—to himself. And the commissioners, their duty is to *render advice* to the Board of Health and to the City Inspector. The Board, Commissioners, and Inspector thus mutually advise one another, and are responsible to each other. All, however, seem to await the reports, and adopt the advice, of the Health Officer, who, by getting approval of his own contemplations, and signing them in virtue of his official capacity, is virtually autocrat of the establishment.

The affair of the Susquehanna only differs from the more ordinary cases by being the United States on one side, and on that account more easily got at. It is a fair exemplification of *management* on a large scale, and what the merchants of New York are daily tolerating in the quarantine establishment.

This remnant of barbarism has been perpetuated against every received theory and well authenticated fact regarding the nature of epidemic diseases for more than two centuries.

Quarantine, as generally practiced, and particularly at New York, has been and is the producer of what it pretends to prevent.

By congregating together numerous ships loaded with infectious goods, from places prolific in the causes of epidemics, by keeping things thus infected, confined in the dark, damp holds of ships to eke out their poison—and above all, by detaining persons in an atmosphere thus contaminated till they sicken and die—quarantine is in every aspect, as applied to persons, contrary to every principle of health and humanity—an obstruction to commerce and a public nuisance.

Yellow fever, nor no other epidemic, is the product of specific contagion, that can be stayed in its progress by the isolation of individuals; but it, *and all disease* against which quarantine has been supposed to provide, are the legitimate offspring of decomposing organic matter, and everything which contributes to this—as collecting such matter in large quantities in the manner practiced at the New York Quarantine—contributes to the rise and spread of epidemics.

The necessity of destroying local nuisances of every kind, whether on land or sea, is essential to the promotion of health. Wharves, docks, courts, yards, cellers, or the obnoxious qualities of all these collected together at a well organized quarantine depot—all accumulations of filth, should be cleansed, paved, and watered, or *removed.*

The true basis of a well organized quarantine, as a part of a system for the promotion and protection of public health, consists in—1. *Immediate freedom and pure air to all well persons.* 2. *Warehouses* for infected goods, with provision for unloading and ventilating ships which are found to be infected, *immediately after arrival.* 3. *Anchorage ground* at such a distance and direction from the warehouses, and all populous neighborhoods, as to endanger no one; and—4. A *Marine Hospital,* also at such a distance and direction from the anchorage ground as to be in no danger from them.

Quarantine on such a basis presents the greatest advantages for health, and the least obstacle to commerce. Well people have their freedom without being kept subject to the causes of disease; sick persons a chance of recovery; merchants their ships in the shortest possible time, and goods their safety.

It is worthy of special note in selecting sites for quarantine buildings, where yellow fever has only occasionally prevailed in the United States, that it has always been preceded by southerly winds; yet these have never extended the disease unless they have had infected cargoes in their line. In 1856, as on all previous occasions in New York, the first cases on shore were in a direct line of the prevailing winds and quarantine shipping.

The only neck of land exactly suited to these conditions in the vicinity of New York is Sandy Hook, the trend of which is almost due north from the main land, and southerly winds being from the landward *to seaward,* can under no possible circumstances propagate disease from that point inland. There is ample room there for the necessities of the whole establishment, and it is reasonable to believe that quarantine, modified as herein indicated, would be liable to none of the objections urged by New Jerseymen against the obnoxious character of the old establishment.

Should there, however, be any obstacle to obtaining this site from New Jersey, the plan could be adopted on other available places already under the jurisdiction of New York.

Iron warehouses, so built as to admit of the free circulation of air through them, on stone foundations raised from knolls on the *old Orchard Shoals*, with all the appurtenances necessary for immediately unloading ships, could be erected with less expense to the merchants of New York than the present establishment under the old regime can be conducted for one year.

Additional anchorage ground, for such brief periods as would be necessary under this system, could be designated in various places; for a few weeks at most would afford ample time for the perfect cleansing and ventilation of empty ships, when they could again be restored to their owners and to lucrative trade, instead of submitting their owners and the public to such an onerous tax as they now do. A Marine Hospital, for *sick persons only*, would scarcely be objected to anywhere. The chief object in placing it should be to put it out of range from the storehouses and anchorage.

Great Kill would form a good site. An objection to this place has been raised, on the ground of insufficient draft of water for a steamer to approach it. So far from this being a valid objection, it is *an advantage*, for while there is water enough for large boat draft, its shallowness precludes the dangers to which the hospital would otherwise be subject. The draft there is amply sufficient for all the wants of a hospital, but to no other part of the establishment—and for this so much the better.

The remaining advantages, *freedom to well persons*, etc., are sufficiently implied in the context.

JOURNAL OF MERCANTILE LAW

APPLICATION FOR INJUNCTION.

In the Supreme Court. Before Judge Ingraham, August 24. David Banks, Jr., *et al.*, *vs.* Oliver Banks and others.

The plaintiffs in this action ask for an injunction restraining the defendants, Barbour and Davison, from publishing and selling the manuscript reports of the decisions of the Supreme Court, and that they also be restrained from publishing or vending any printed copies of any manuscript reports of such decisions.

It appears from the pleadings that the defendant, Barbour, in 1847, made a contract with the firm of Gould, Banks & Gould, whereby Barbour, for a consideration to be paid to him, agreed to furnish to the said firm reports in manuscript of such of the decisions of the Supreme Court as he should deem proper for publication, and as should be received by him from the judges of the court for that purpose, so long as he should receive from the said judges a sufficient number of opinions suitable to be reported, and should be furnished with the necessary facilities by the said judges to enable him to report their decisions, and that he would superintend the printing and the proofs; that the copyright should belong to the firm, and that he would do any legal act necessary to carry the contract into effect.

Under this contract the parties have acted in the publication of the twenty-four volumes of reports which have heretofore been published.

It also appears that since the making of the contract, two of the plaintiffs, in 1851, became members of the firm of Gould, Banks & Gould, when the name was changed to Banks, Gould & Co., in New York, and Gould, Banks & Co., in Albany; that thereupon the books, copyrights, and contracts were transferred to the new firm, and the publication of the late volumes was continued by that firm; that David Banks, William Gould, and Anthony Gould, withdrew from the

firm, and the remaining plaintiff was taken into the firm as a partner, and the name of the firm was changed to Banks & Brothers, to which firm all the copyrights and contracts were transferred, including the contract with Barbour, and notice of such transfer was given to Barbour.

It is further alleged that Barbour has prepared and caused to be printed by Davison the 25th volume of such reports, and was about to sell the same to the plaintiff's injury.

The answers of the defendants show that the defendant Barbour made his contract with David Banks, William and Anthony Gould, and that in making the contract he relied upon their personal efforts and influence, experience and reputation, and that this formed the principal moving consideration to make the contract with him. It denies knowledge or belief as to the admission of any of the plaintiffs into the firm in 1851, or of any transfer to them.

The defendants also deny any knowledge or information as to their interest in the contract, or that the contract had been transferred to any one until January, 1858, when Barbour received a circular from the new firm of Banks & Brothers.

The defendant, Barbour, claims that his contract was only made with the old firm, and that the plaintiffs have no right to such contract, but that it has ceased and terminated; that the contract was one requiring the personal efforts and services of the members of the former firm, and that the same could not be transferred to the plaintiffs.

Affidavits were also submitted, stating other matters relating to the dealings between the parties, and the affidavit of Little states that he purchased the copyright from Barbour, and paid for it, without any knowledge that the plaintiffs had any right or claim to the contract; that he has taken out a copyright of the volume, has published the said 25th volume, and has the same ready for sale.

The question which arises as to the right of the plaintiffs to enforce this contract, or whether, if they could, this contract is to be considered a permanent contract, without any termination other than the refusal of the judges to furnish their opinions therefor, are not necessarily to be decided for the disposition of this motion. The contract is a personal contract with the members of the firm of Banks, Gould & Co., of New York, and Gould, Banks & Gould of Albany, and provides for a copyright to be taken out by them or their assigns; and they for themselves, their heirs and assigns, agree to pay for each volume a certain amount.

The obligation on the part of the assigns of the firm to pay for the volumes as published by them, would seem to imply the right to assign the contract as a prerequisite to the obligation on the part of the assigns of the firm to pay for any volumes delivered under it.

In regard to the 25th volume of the reports, there are, however, other reasons which induce me to refuse any injunction to restrain the sale of that volume.

First. The defendant, Little, has purchased and paid for the volume without knowledge of any right or claim on the part of the plaintiffs to the same. If Barbour has seen fit to violate the contract, and has disposed of the volume to Little, he is responsible in damages, and the plaintiffs have no other remedy as to that volume than an action; therefore, when a contract is made to sell personal property, or do work for another, and the party chooses to sell such property to a third person, without notice of the claim, the breach of the contract gives no right to the party injured to follow that property in the hands of an innocent purchaser.

Second. The damages to be sustained by the plaintiffs, if they are entitled to the contract, can easily be ascertained in an action for such damages. The number of the edition published, the value of each column, and the profits to be made from the sale, are mere matters of calculation, and there is no need of an injunction to prevent serious or irreparable injury to the plaintiffs.

The code undoubtedly has used terms in regard to this writ which, literally construed, have extended it to many cases in which it had not been previously used, but in a case of mere breach of contract, easily ascertained, and for which an ample remedy exists by action, I see no propriety in resorting to it. Such an

extension of the writ I cannot consider was ever intended by the Legislature, and caution in the granting of injunctions is called for, rather than any further addition to the cases in which it may be used.

Third. It would be unadvisable, unless necessary for the protection of the plaintiffs, to delay by an injunction the sale of a work which is required for the public use, and in which the public are interested. To delay the publication until the trial of this case, would probably postpone the sale of the book for more than a year, to the inconvenience of courts and suitors. For these reasons I am of the opinion that the motion for the injunction as to the twenty-fifth volume of the reports should be denied.

There is nothing in the complaint to show that the defendants contemplate publishing any other volume, or that the defendants, Barbour or Little, have any interest in, connection with, or control over, any other manuscripts or volumes of reports except the twenty-fifth volume before referred to. There is, therefore, no grounds for an injunction as to any other publication.

Motion for an injunction is denied. The defendants' costs ($10) to abide event.

FALSE PRETENSE CASE.

In the Supreme Court. Before Judge Clerke, August 24. Elias H. Main *vs.* Lucius E. Bulkley.

This was a case for an application to discharge the defendant from an order of arrest. The facts in the case, as stated in the plaintiff's affidavit, were that on the 24th of April, 1857, defendant applied to him for a loan of $600, and to induce plaintiff to lend the money represented that he was the owner of 1,000 shares, at $100 each, of the Stockbridge and Pittsfield Railroad Company, which he would transfer to the plaintiff as collateral security for the loan; deponent then gave a check for the amount to Bulkley, who pretended to be in a great hurry, and that he could not then transfer said stock; that a few days after Bulkley represented that he was perfectly responsible, and that there was no occasion for the transfer of the stock; that on the 6th of May, 1857, defendant obtained a further loan of $150 for eight days from deponent, by representing that he was also the owner of 100 shares, of $100 each, in the Rutland and Whitehall Railroad Company, which, as he stated, were good dividend-paying stocks, and at par in the stock market. On the faith of these representations, deponent gave him the $150, and extended the time to pay the $600 for some days. At that time defendant also represented that the stocks of the Stockbridge and Pittsfield Railroad Company were at par in the market, and perfectly good, and deponent, relying on the truth of Mr. Bulkley's statement, did not press for the transfer of the stock, as promised by defendant. That the stock is not worth as much as represented, neither had it been for a long time previous to said representations. Deponent also states that some time in May, 1857, deponent had employed defendant, who is an attorney at law, to collect a claim against one John Mowatt, and that Bulkley collected the sum of $40 thereon, which he refuses to pay over. Defendant applied for his discharge, on the ground of the orignal affidavit not being sufficient to warrant the order. His Honor denied the motion in the following opinion:—

Although the facts are not detailed with as much particularity and in as precise order as I deem desirable, yet I think now, as I first thought, that enough is shown in the affidavit to enable me to infer a deliberate design on the part of the defendant to defraud the plaintiff, from the beginning. His manner and conduct, at the time of obtaining the first loan, stated in the plaintiff's affidavit, taken in connection with his subsequent conduct, and particularly the non-fulfillment of his promise, shows that design. Not that the breach of promise of itself necessarily is indicative of fraud, or could alone lay the foundation for an order of arrest; but, following indications of a dishonest purpose in contracting the debt, this breach of promise strongly corroborates my belief that the defendant never *intended* to deliver the stock, and that his representations respecting it were false.

But, it is contended, even supposing the defendant did not act fairly with regard to the first loan, that the plaintiff waived his objection, and his right to the stock as a security, by entering into a new arrangement with the defendant when he obtained the second loan—the loan for $150. The answer to this, however, is, that on this second occasion the same indications of a fraudulent intent are manifested by his conduct at the time, and by his subsequent failure to perform his promise to transfer the stock; and if, under such circumstances, the plaintiff waived any of his rights, he is not bound by the waiver, for fraud vitiates everything. I can scarcely admit that the defendant's second fraud can have the effect of exonerating him from the consequences of the first. Two wrongs can never make a right.

After failing to deliver the stock, which the defendant promised to give as security for the first loan, he made various additional representations to the plaintiff; among others, that he was a man of considerable property and perfectly responsible for the amount, and that the stock was much more valuable than it really was; in consequence of these representations the second loan was made, and the same result followed—an entire failure to give security or to pay the money. If, therefore, I am to believe the plaintiff, I must conclude that the defendant has justly exposed himself to the imputation of a fraudulent intent in this transaction. It shows that, throughout the whole transaction, the conduct of the defendant was not that of an honest borrower.

Motion denied with costs.

JURISDICTION—EXECUTORY CONTRACT.

In the United States District Court in Admiralty, April, 1858. Before Judge Betts. Rafael R. Torices *vs.* the ship Winged Racer.

This was an action to recover damages against the ship for the non-performance of a charter from this port to China, for the transportation of Coolies to Havana. The libel alleged the execution of the contract by the owners of the ship, and that they have since wholly refused to perform it, and prayed damages to the amount of $28,951.

The owners excepted to the libel.

Held by the Court.—That the agreement set up was an executory contract only, entered into on land, and never commenced to be performed on water, and therefore does not come within the jurisdiction of the court.

Decree for exceptant, but with leave to the libelant to amend his libel within twenty days on payment of costs.

For libelant, Messrs. McCulloh and Ridgeway. For claimants, Messrs. Stoughton and Harrington, and Judge Beebe.

LIABILITIES OF POSTMASTERS.

An important law case was closed at Springfield, Massachusetts, in which William Davis & Co., of Frankfort, in this State, were plaintiffs, and Foster Pepper, Postmaster at Monson, Massachusetts, defendant.

The Monson Bank sent a package of $2,000 in money addressed to the plaintiffs, depositing the package in the Monson Post-office. The package never reached its destination, and the parties to whom it was addressed, sued the Postmaster, Pepper, for the amount lost. There was no criminal prosecution, for no suspicion of guilt was entertained. The only fault attempted to be fastened upon Pepper, was (if we remember right) that he did not mail the package "direct," instead of the usual mode through the distributing offices. The verdict was for the defendant.

COMMERCIAL CHRONICLE AND REVIEW.

GENERAL STATE OF FINANCE—CROPS IMPROVING—HARVESTS ABROAD—LOW PRICES FOR FOOD—EXPORTS OF BREADSTUFFS—SOUTHERN EXPORTS—COTTON VALUE—SPECIE AT NEW ORLEANS—MINT—BANK RESERVE—EXCHANGE—BANK RETURNS—FLOW OF SPECIE—PARIS AND LONDON—CONSUMPTION OF GOODS ABROAD—RATE OF MONEY—BALANCE OF TRADE—EXCHANGE—EXPORTS OF SPECIE—COMPARATIVE RECEIPTS—THE CENTRAL AMERICA—CHARACTER OF SPECIE EXPORTS—ABUNDANCE OF COIN—DISCOUNT ON SILVER—REDEMPTION OF MONEY—BANK OF MUTUAL REDEMPTION—REDEMPTION IN PHIALDELPHIA.

THE general state of commercial and financial affairs has remained nearly the same during the month as at the date of our last, with a general tendency towards an improved condition of things. The imports have continued small for the fall trade, while the exports of the leading articles have been well sustained, and the year's balance shows largely in favor of the country. The very fine weather which has prevailed during the month of September, has gone far to repair the damage which previous rains was supposed to have done the crops, and imparted a more cheerful aspect in that respect. The favorable accounts of the European crops, however, debars the idea of very extended exports of breadstuffs for the coming year, and leading to the prospect of low prices for food. Such a prospect, however favorable it may be for the inhabitants of towns and cities, and for manufacturers and artisans, does not attract capital into the crops, as would be the case with the prospect of a rising market. The exports of breadstuffs for the past year have nevertheless been large from the ports to the continent, and to Great Britain, as follows :—

EXPORTS OF BREADSTUFFS, SEPTEMBER 1ST TO OCTOBER 31ST.

	1857.			1858.		
	Flour, bbls.	Wheat, bush.	Corn, bush.	Flour, bbls.	Wheat, bush.	Corn, bush.
To Great Britain	863,179	7,567,001	4,793,134	1,300,906	6,658,639	3,372,464
Rest of Europe..	483,344	2,875,653	543,590	303,100	390,428	16,848
Total.....	1,346,523	10,442,654	5,336,724	1,604,006	7,049,067	3,389,312

This has been a large export, considering the low prices which have ruled abroad, but the largest proportion was sent away in the first half of the year. The subsequent decline in prices induced the growers to hold for prices that they will not be likely now to realize. The exports of the great staples from the South have been large this year, and have fully realized more than ever before. The value of cotton exported from New Orleans and Mobile to foreign ports for the year to September 1st, 1858, was as follows :—

	1857.			1858.		
	Bales.	Price.	Value.	Bales.	Price.	Value.
New Orleans	1,293,717	$57	$73,741,869	1,495,070	$52¼	$79,491,175
Mobile.....	314,989	..	20,419,712	387,632	..	22,289,025
Total.....			$94,161,581			$101,780,200

With the large exports and diminished imports, the balance has been apparently in favor of the South. The imports of specie at New Orleans have been very large, reaching a far higher figure than ever before, by $11,732,083 against $4,278,420 at the same time last year. Of this large amount over $6,400,000 has been silver from Mexico, and the operations of the New Orleans Mint were, for the year to August 1st, as follows :—

	Gold.	Silver.	Total.
From California.....	$425,276 73	$2,771 57	$428,048 31
Other.....	709,556 23	3,642,074 89	4,351,631 12
Total.....	$1,134,832 97	$3,644,846 46	$4,779,679 43
Coinage.....	1,205,000 00	3,237,000 00	4,442,000 00

It has resulted, as will be seen from our weekly bank tables in our Banking Department, that the amount of specie and exchange in bank at New Orleans is much larger than usual, the former being double the amount on hand at the corresponding period last year, and the exchange held is in a larger ratio. The new crops of cotton, as well as of sugar and tobacco, promise well, and all the elements of a large consumption exist in the markets at home and abroad. While New Orleans, the chief point of exports, shows so strong a position, the accumulation of money at the North continues. The amount of specie in the banks of six cities is now as follows. The amount for New York includes that in the sub-treasury, which has been put there by the loan operation of the government:—

SPECIE IN BANKS.

	October.	March 11.	May 13.	June 13.	July 12.	August 14.
London.	$35,850,110	$88,532,091	$86,940,942	$86,530,138	$84,217,895	$83,937,637
Paris...	35,585,613	63,823,865	82,993,886	85,716,528	98,991,184	105,288,051
N. York	7,843,230	32,961,076	34,730,728	33,367,253	35,328,184	44,037,300
N. Orl'ns	3,230,370	10,978,759	10,615,535	10,312,237	10,877,768	10,912,871
Boston.	2 563,112	7,589,968	9,210,111	9,410,569	9,000,663	8,795 945
Philad..	2,071,434	5,448,514	7,019,204	7,055,188	6,399,754	6,875,520
Total	86,743,890	208,834,273	231,509,906	232,391,913	244,855,448	259,842,424

This is the season of the year when the specie accumulations are everywhere the greatest. It is the close of the crop year, when the products of the earth have been sold and paid for, and the money which operated this transfer from the hands of the producers to the consumers has returned to the central reservoirs, preparatory to resuming its functions for a new year. These accumulations in Paris and London are as large as they ever before attained, and the United States are far larger. In the first named city the specie in bank was never so large but once before, and that was just previous to the Russian war, which event, accompanied by the bad harvests of food, and silk, and wine, which carried the specie reserve to the lowest point, and compelled the bank to purchase largely of specie. The events have now turned. The silk crops and the vines are in good condition, while the food is abundant, and but little money will be required to loan France for this purpose. It has, therefore, been in contemplation to reduce the rate of interest to 3 per cent. In London the accumulation is also large.

The India war has caused an outward current of money, which has, in some degree, retarded the accumulation in bank, but the harvests are there good also, with a considerable revival in export trade to the East. These are all elements of a promising future, and a renewal of the home demand for goods, which has been in abeyance during the high prices which have prevailed for food. The accumulation of money in New York and the other Atlantic cities has not yet produced its usual results in increasing trade, and the rate of interest remains low. On call money is had freely at 4 per cent, and good bills are done by the banks at 5 a 6 per cent, but the usual amount of money is not offering. By reference to the trade tables annexed, it will be seen that the imports as compared with

the exports from New York, as well as from the South, do not warrant high rates of exchange. These have, however, been well maintained as follows :—

	August 31.	September 15.
London	109¼ a 110	109¼ a 110
Paris	5.13¾ a 5.10	5.13¾ a 5.10
Bale and Zurich	5.12½ a 5.10	5.12½ a 5 10½
Amsterdam	41½ a 41¾	41½ a 42
Frankfort	41½ a 41¾	41½ a 42
Bremen	79 a 79¾	79½ a 79¾
Hamburg	86½ a 86¾	86½ a 86¾
Antwerp	5.15 a 5.11½	5.15 a 5.11½
Berlin, Liepzig, Cologne	73 a 73½	73¾ a 73½

The supply of bills on the market, notwithstanding the quantity of the new United States loan taken abroad, has been less than the quantities usually derived from that source, and also by the indisposition to draw money to this side by reason of the non-employment for it. The exports of specie have been sustained, but to a less extent than last year. The comparative amount has been as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,266
23.....	.....	781,295	.....	1,244,368	3,073,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,430	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,134	225,274	2,964,000	35,925,076
20.....	1,004,000	806,351	11,000	116,114	6,853,852	37,681,656
27.....	.....	88,734	1,403,949	83,120	6,141,594	37,071,066
April 3.....	1,487,198	742,233	.....	115,790	5,548,069	37,078,069
10.....	375,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	203,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,390	1,550,000	136,873	3,145,400	38,209,613
8.....	.....	671,101	.....	106,110	2,874,200	38,327,346
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,394,892	1,446,175	16,616	4,803,609	38,170,900
17.....	203,000	2,045,389	.....	68,318	7,773,108	38,011,251
26.....	.....	2,019,406	1,799,502	276,487	7,461,600	39,410,688
July 3.....	1,892,000	58,228	.....	317,110	5,820,000	39,650,000
10.....	.....	1,184,115	1,500,000	564,030	5,342,200	40,047,800
17.....	1,591,107	523,368	.....	637,240	5,157,600	40,485,000
24.....	200,000	1,893,893	.....	1,028,270	5,336,000	40,851,000
31.....	1,488,040	896,407	1,163,818	303,318	5,144,700	40,856,800
Aug. 7.....	.....	1,615,932	.....	786,841	5,553,400	40,699,200
14.....	1,245,905	930,430	1,531,514	440,729	12,886,800	44,037,300
22.....	.....	2,180,008	.....	844,781	17,739,600	46,089,100
29.....	.....	149,399	1,434,674	187,941	13,418,000	41,235,000
Sept. 4.....	1,706,000	287,500	.....	562,087	13,077,000	41,125,600
11.....	100,000	187,187	1,796,139	227,980	12,626,900	40,686,300
Total.....	25,981,217	32,237,698	25,953,564	18,112,777	.....	.....

The receipts of gold this year are about the same as last, but the exports are

Our summary of the imports of dry goods, during the last four weeks, shows a high increase on the corresponding statement of last year. The total entered for warehousing during the month was less than for the corresponding period of last year, while the total withdrawn from warehouse was nearly the same :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF AUGUST.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$2,552,263	$3,867,718	$3,248,227	$4,312,916
Manufactures of cotton	806,606	1,490,021	1,334,473	1,789,745
Manufactures of silk	3,574,080	3,887,008	2,758,097	3,526,725
Manufactures of flax	507,196	724,075	564,507	839,927
Miscellaneous dry goods	638,912	821,341	631,816	613,826
Total	$8,079,007	$10,790,163	$8,532,120	$11,083,139

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$402,640	$583,959	$796,631	$911,951
Manufactures of cotton	128,779	118,004	229,041	204,568
Manufactures of silk	324,445	132,938	511,045	305,353
Manufactures of flax	99,286	38,764	188,023	202,568
Miscellaneous dry goods	33,016	15,994	45,656	84,643
Total	$988,166	$889,659	$1,770,396	$1,709,083
Add entered for consumption	8,079,007	10,790,163	8,532,120	11,083,139
Total thrown on market	$9,067,173	$11,679,822	$10,302,516	$12,792,222

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$95,269	$455,059	$380,041	$239,236
Manufactures of cotton	47,272	172,872	120,505	105,683
Manufactures of silk	28,954	141,124	218,164	73,243
Manufactures of flax	28,434	122,496	78,096	54,270
Miscellaneous dry goods	23,312	11,379	136,799	18,969
Total	$223,241	$902,930	$933,605	$491,401
Add entered for consumption	8,079,007	10,790,163	8,532,120	11,083,139
Total entered at port	$8,302,248	$11,693,093	$9,465,725	$11,574,540

The total imports of foreign dry goods at the port of New York, since January 1st, are $24,470,086 less than for the corresponding eight months of last year, and $28,963,882 less than for the same period of 1856 :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR EIGHT MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$10,417,073	$19,161,032	$17,648,469	$11,980,604
Manufactures of cotton	5,471,337	11,712,154	12,927,582	6,676,304
Manufactures of silk	14,831,814	23,373,656	20,563,139	12,381,859
Manufactures of flax	3,422,551	5,838,817	4,669,025	2,955,195
Miscellaneous dry goods	3,428,557	5,278,443	5,052,091	2,396,258
Total	$37,571,332	$65,354,102	$60,860,306	$36,390,220

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,945,257	$1,793,897	$4,485,294	$3,518,346
Manufactures of cotton	1,901,632	1,653,183	2,631,053	3,151,898
Manufactures of silk	2,157,878	1,600,737	3,755,533	2,887,009
Manufactures of flax	971,386	784,719	1,316,035	1,746,616
Miscellaneous dry goods	611,761	314,800	637,637	1,028,634
Total withdrawn	$7,587,914	$6,146,336	$12,825,552	$12,332,503
Add entered for consumption	37,571,332	65,354,102	60,860,306	36,390,220
Total thrown upon market	$45,159,246	$71,500,938	$73,685,858	$48,722,723

ENTERED FOR WAREHOUSING.

Manufactures of wool	$1,357,630	$2,438,657	$5,729,871	$1,731,492
Manufactures of cotton	1,142,552	1,433,185	2,623,091	1,547,538
Manufactures of silk	1,670,228	1,688,628	4,207,627	988,141
Manufactures of flax	725,226	636,779	1,536,725	649,230
Miscellaneous dry goods	559,673	438,688	1,224,398	437,277
Total	$5,455,309	$6,635,937	$15,321,712	$5,353,678
Add entered for consumption	37,571,332	65,354,102	60,860,306	36,390,220
Total entered at the port	$43,026,641	$71,990,039	$76,182,018	$41,743,898

The exports from New York to foreign ports show a large decrease in specie, but the variation in other items is less important. There is a slight increase in the exports of domestic produce :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF AUGUST.

	1855.	1856.	1857.	1858.
Domestic produce	$4,281,481	$5,612,828	$4,289,479	$4,660,272
Foreign merchandise (free)	151,482	88,242	393,882	102,674
Foreign merchandise (dutiable)	222,176	211,933	654,088	224,488
Specie and bullion	2,609,892	3,202,053	6,271,717	2,201,802
Total exports	$7,264,532	$9,115,056	$11,609,166	$7,189,186
Total, exclusive of specie	4,665,139	5,913,003	5,337,449	4,987,384

This leaves the exports from New York to foreign ports, exclusive of specie, for the first eight months of the current year, $7,512,009 below the corresponding total of last year. The exports of specie show a decrease of nearly $15,000,000 upon the total of the previous year :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR EIGHT MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce	$33,579,662	$50,290,998	$43,014,815	$38,012,626
Foreign merchandise (free)	3,440,596	680,750	2,709,756	955,698
Foreign merchandise (dutiable)	3,422,348	2,044,601	3,538,044	2,782,282
Specie and bullion	22,607,612	22,703,980	32,298,156	17,363,257
Total exports	$64,050,118	$75,720,324	$81,560,771	$59,113,863
Total, exclusive of specie	42,442,606	53,016,344	49,262,615	41,750,606

The cash revenue for August shows a large decline compared with last year, and, as compared with 1856, larger than the decline in imports would warrant, since there are more goods free of duty :—

CASH DUTIES RECEIVED AT NEW YORK.

	1856.	1857.	1858.
First six months	$22,541,145 75	$19,298,521 31	$11,089,112 57
In July	5,441,544 27	6,987,019 61	3,387,305 32
In August	5,286,399 11	3,946,830 40	3,545,119 01
Total since January 1st	$33,269,098 13	$30,227,871 32	$18,021,536 91

This shows fairly the operation of the new tariff, and the comparison is highly instructive. The following is the total value of dutiable goods thrown upon the market at New York, with the duties actually collected thereon, in the same month of each of the last five years:—

	Dutiable value.	Duties collected.
August, 1854	$20,518,048	$5,214,629
" 1855	16,789,642	4,290,796
" 1856	20,900,393	5,286,899
" 1857	20,025,165	3,946,830
" 1858	18,183,165	3,545,119

The duties under the tariff of 1846, upon the goods marketed at the port of New York, have averaged about 25 per cent; for the same month of 1856, the average, under the new tariff, was a fraction below 20 per cent, and this year it is 19¼ per cent, which may be set down as the probable average for the future.

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,983	$28,561,946	$6,490,403	$78,635,225	$13,601,357	$65,033,867
9	98,792,757	29,176,838	6,625,464	79,841,362	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,593,348	13,074,762	69,523,886
30	102,180,089	31,273,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,873,931	86,000,468	15,489,083	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,588	70,425,909
20	103,706,734	31,416,076	6,542,618	86,773,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 6	105,021,863	32,789,731	6,854,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,482	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,231	90,644,098	16,429,056	74,201,709
April 3	110,588,854	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,436	7,245,809	93,566,100	16,775,237	76,790,863
17	111,341,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111,868,456	35,064,213	7,481,814	98,438,506	17,875,203	80,563,303
8	112,741,955	35,453,146	7,735,056	101,165,806	19,438,661	81,727,146
16	114,199,288	34,730,728	7,502,975	101,884,163	18,284,868	83,599,295
22	115,658,082	34,047,446	7,807,445	101,917,869	17,620,131	84,297,738
29	116,650,943	31,496,144	7,252,616	99,351,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,830	101,489,535	17,982,648	83,506,887
12	116,022,152	33,367,253	7,367,725	100,787,073	16,503,899	84,283,194
19	117,797,547	32,396,456	7,297,631	102,149,470	16,818,521	85,280,987
26	118,823,401	31,948,089	7,215,689	101,961,682	15,825,983	86,135,699
July 3	119,812,407	33,830,232	7,458,190	106,803,210	17,267,927	89,535,283
10	118,863,937	34,705,593	7,571,373	106,420,723	18,168,757	88,260,956
17	119,164,222	35,328,184	7,346,946	107,101,061	17,046,961	90,054,100
24	118,946,482	35,315,243	7,351,065	105,490,896	15,365,206	90,105,690
31	119,850,456	35,712,107	7,408,365	106,456,030	15,310,157	91,145,873
Aug. 7	120,892,857	35,154,844	7,784,415	107,454,715	17,115,237	90,339,678
14	123,374,459	31,150,472	7,388,739	105,034,769	15,208,690	89,826,082
21	126,868,231	28,349,507	7,480,684	104,609,658	15,449,895	89,159,763
28	126,004,424	27,817,006	7,466,846	103,928,178	16,208,039	87,720,139
Sept. 4	125,885,840	28,048,661	7,748,249	103,847,811	15,414,213	87,933,594
11	125,013,211	28,059,495	7,830,669	102,899,554	15,989,375	86,908,179

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Dec. 22....	$50,209,500	$4,579,000	$5,627,000	$15,606,000	$4,054,800	$5,888,000
29....	50,377,000	4,789,500	5,130,400	16,326,600	3,998,000	5,688,000
Jan. 5....	50,726,800	5,028,000	5,416,000	17,078,800	3,911,000	5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,368,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25....	51,772,412	6,073,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,395,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,137,972	7,079,606	5,898,660	18,429,945	5,568,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,329,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,137,000
15....	52,068,743	7,559,698	5,291,549	18,909,682	5,837,534	6,011,877
22....	51,999,451	7,235,531	5,163,492	19,029,251	.....	.....
29....	51,632,451	7,905,491	5,159,569	18,895,249	.....	.....
April 5....	51,918,900	8,259,500	5,477,500	20,186,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	.....	.....
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,533	7,363,702
May 4....	51,499,700	9,243,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,903,020	20,846,860	6,580,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,037	7,265,607	6,399,061
14....	53,951,032	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268
21....	54,162,119	9,457,831	5,703,699	20,764,739	7,804,896	5,809,542
28....	54,780,644	9,119,604	5,633,176	20,833,942	7,827,075	5,674,795
July 5....	55,808,453	9,104,461	6,313,049	21,570,803	8,089,162	6,357,413
12....	56,200,929	9,000,663	6,538,325	21,075,247	8,526,510	6,299,019
19....	56,626,264	8,930,757	6,236,698	21,462,437	8,565,647	6,023,415
26....	56,602,469	8,943,004	6,268,745	21,456,471	8,658,185	6,268,745
Aug. 2....	56,250,500	8,883,400	5,869,800	21,161,000	8,467,000	5,757,000
9....	56,096,805	8,985,526	6,238,221	21,051,519	8,445,734	6,112,023
16....	55,971,072	8,795,945	6,026,818	20,804,875	8,132,356	5,675,367
23....	55,845,271	8,958,280	5,988,995	20,698,794	7,693,989	5,599,457
30....	55,650,350	8,724,186	5,889,477	20,698,228	7,537,728	5,952,844
Sept. 6 ...	55,926,042	8,701,619	6,137,981	20,971,138	7,632,562	6,287,397

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
April 10.....	$1,255,694	$1,788,970	$1,678,628
17	1,161,065	1,793,945	1,720'728
24..... .	1,250,295	1,832,915	1,770'882
May 8.....	1,869,316	1,240,431	1,959'823
15.....	1,494,025	1,864,960	2,161'503
22.....	1,547,938	1,825,810	2,225'285
29.....	1,543,531	1,921,475	2,296'027
June 5.....	1,557,119	2,087,890	2,452'141
12.....	1,471,190	2,101,405	2,536'707
19.....	1,459,735	2,161,985	2,465,372
26.....	1,417,340	2,005,505	2,434,398
July 3.....	1,523,179	2,246,885	2,320,758
10.....	1,445,704	2,260,560	2,315,635
17.....	1,490,876	2,190,955	2,322,245
24.....	1,494,116	2,161,370	2,238,498
31.....	1,487,256	2,159,540	2,169,387
Aug. 7..... .	1,531,723	2,079,225	2,108,988
14.....	1,609,067	1,982,160	2,081,197
21.....	1,695,299	1,882,625	2,026,841
28.....	1,766,798	1,943,785	2,043,783
Sept. 4.....	1,784,169	1,975,760	1,995,312

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,302,374	$3,770,701	$1,011,033	$11,465,263	.....
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512,765	.....
Jan. 25....	20,730,958	4,243,966	1,062,192	11,547,697	.....
Feb. 1....	20,423,704	4,465,693	1,096,462	12,195 126	.....
Feb. 8....	20,359,226	4,668,085	1,293,046	11,904,519	.....
Feb. 15....	20,071,474	4,888,983	1,559,218	11,889,342	.....
Feb. 22....	20,161,260	4,924,906	1,686,689	12,014,605	.....
Mar. 1....	20,251,066	4,903,936	1,808,734	11,830,532	.....
Mar. 9....	20,471,161	5,147,615	1,916,352	12,253,282	.....
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	.....
Mar. 23....	20,796,957	5,468,358	2,140,468	12,413,191	.....
Mar. 30....	21,020,198	5,661,782	2,296,444	13,201,599	.....
Apr. 6....	21,657,152	5,937,595	2,647,399	13,422,318	3,056,181
Apr. 12....	21,656,028	6 133,000	2,675,193	13,784,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,800	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,243,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,973
May 17....	22,592,841	7,019,204	2,351,709	15,548,287	3,055,076
May 24....	22,969,576	6,963,371	2,410,181	15,854,428	3,221,858
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,306	3,565 213
June 21....	23,803,903	6,873,971	2,365,435	15,857,904	3,504,300
June 28....	24,060,708	6,664,681	2,389,252	16,356,129	3,101,201
July 5....	24,311,928	6,885,877	2,431,181	16,566,846	2,986,297
July 12....	23,783,792	6,899,754	2,422,411	15,898,464	3,369,430
July 19....	24,555,873	6,868,596	2,548,945	16,937,535	3,351,204
July 26....	24,570,778	6,956,440	2,514,345	17,196,794	3,291,107
Aug. 2....	24,524,569	7,070,145	2,505,278	17,533,780	3,234,866
Aug. 9....	24,542,291	6,882,660	2,534,652	17,054,076	3,176,333
Aug. 16....	24,829,767	6,875,520	2,522,540	16,929,656	3,378,351
Aug. 23....	24,918,526	6,605,882	2,505,899	16,848,980	3,421,217
Aug. 30....	24,843,131	6,476,406	2,460,645	16,961,496	3,446,195
Sept. 4....	24,988,251	6,635,856	2,520,501	17,426,777	3,340,165

PITTSBURG BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due banks
April 12.....	$5,513,821	$1,194,232	$1,287,095	$1,805,294	$70,236
19.....	5,570,585	1,220,633	1,291,091	1,345,062	87,713
26.....	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May 3.....	5,784,492	1,192,216	1,360,551	1,504,549	40,312
10.....	5,763,651	1,171,627	1,365,551	1,585,182	74,491
17.....	5,737,072	1,191,663	1,373,401	1,491,620	111,260
24.....	5,769,868	1,175,334	1,371,586	1,464,767	124,044
31.....	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June 7.....	5,895,461	1,207,637	1,426,586	1,540,926	90,334
14.....	5,865,951	1,218,342	1,385,926	1,556,862	108,994
21.....	5,836,952	1,223,759	1,366,481	1,571,589	134,480
28.....	5,874,782	1,266,195	1,377,096	1,630,570	125,743
July 5.....	6,014,676	1,246,588	1,436,651	1,699,196	85,698
12.....	6,016,509	1,229,383	1,458,776	1,691,758	157,608
19.....	6,016,404	1,249,398	1,475,351	1,720,691	165,257
26.....	6,077,608	1,256,026	1,439,916	1,708,210	188,551
Aug. 2.....	6,009,453	1,198,767	1,423,669	1,730,650	188,242
7.....	5,975,821	1,236,485	1,378,231	1,788,792	186,835
14.....	5,940,451	1,257,921	1,428,856	1,818,617	57,411
21.....	5,953,828	1,266,621	1,452,751	1,887,579	182,413
28.....	6,008,461	1,257,173	1,435,516	1,884,917	181,392
Sept. 5.....	5,985,766	1,261,195	1,470,741	1,858,072	142,215

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,280,320	$6,196,459	$7,442,142	$2,297,348	.....
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,870	2,838,878	$816,132
19...	17,818,222	9,942,880	4,224,042	10,996,494	3,526,929	1,266,660
26...	17,741,355	10,320,714	4,336,624	11,579,048	3,951,212	1,363,478
Jan. 2...	18,149,456	10,505,188	4,585,951	11,948,905	4,114,622	1,590,072
9...	.....	10,626,260	4,778,539	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,808	5,095,771	1,552,855
23...	14,559,131	10,693,330	4,767,816	12,573,173	5,201,868	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,136	1,379,908
Feb. 6...	14,490,001	11,187,398	5,037,906	14,539,408	5,934,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,368,835	6,624,657	1,283,609
20. .	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,034
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,832,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,347	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,484	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,686	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,453,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,684	15,658,182	9,321,352	1,410,349
17...	16,480,547	10,854,012	7,685,539	15,640,948	9,035,522	1,381,527
24...	16,094,721	10,798,455	7,828,399	15,589,151	9,221,277	1,473,994
May 1...	15,988,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,882
8...	15,459,485	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,638	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,534	10,257,171	7,965,484	.....	8,269,260	1,102,648
12...	12,828,721	10,312,237	7,943,819	15,464,347	8,533,964	1,009,370
19...	12,374,123	10,208,900	7,645,844	15,714,302	8,720,257	1,119,317
26...	12,390,984	10,423,080	7,323,034	15,676,134	8,110,788	1,034,117
July 3...	12,291,555	10,676,674	7,962,959	16,013,100	7,890,863	1,061,242
10...	12,116,486	10,755,126	7,671,824	14,114,217	6,970,157	1,192,675
17...	11,981,985	10,877,768	7,452,104	14,078,294	7,427,930	1,244,213
24...	11,985,231	10,936,870	7,334,414	13,864,925	6,348,192	1,336,398
31...	12,011,616	10,992,148	7,231,739	15,262,173	6,053,229	1,402,012
Aug. 7...	12,452,664	10,885,005	7,135,389	15,200,271	.....	.....
14...	12,883,216	10,912,975	7,024,587	13,564,756	5,263,035	1,327,951
21...	13,516,161	10,806,910	6,860,289	13,164,598	4,652,889	1,258,843
28...	14,196,661	11,173,021	6,731,599	13,343,938	4,081,875	1,185,562
Sept. 5...	14,892,969	11,285,308	6,828,889	14,636,311	3,853,326	1,139,616

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks
Jan. 11.....	$17,701,725	$565,553	$1,552,822	$2,025,956	$1,338,485
Mar. 15.....	16,925,349	520,828	1,310,787	1,903,082	1,043,930
Apr. 5.....	17,037,949	591 861	1,409,695	1,946,998	1,080,817
19.....	17,169,822	564,033	1,483,226	1,965,816	996,961
May 3.....	17,203,225	566,869	1,393,553	2,068,335	1,089,833
17.....	17,054,877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,555,717	2,088,873	1,206,543
June 21.....	17,345,487	573,317	1,604,850	1,988,496	1,170,711
July 5.....	17,653,908	523,691	1,810,047	2,402,956	1,010,101
July 19.....	17,867,068	466,266	2,039,911	2,079,183	1,145,364
Aug. 2.....	17,780,220	444,165	1,921,812	2,022,092	1,095,396
Sept. 6.....	17,121,639	175,635	1,420,455	935,593	.....

FINANCES OF MEXICO.

According to the recent budget published by the Minister of Finance of Mexico, which we gather from a synoptical translation of the work of Don Miguel Lerdo de Trojada for the New York *Herald*, we have the following statement of the

finances of that Republic, comprising the governmental expenditures, revenue, and national debt, by which it will be seen that the annual expenditures of the general government cannot fall much short of $20,000,000, to meet which the proceeds of all the sources of revenue afford but $15,000,000. leaving a deficit of $9,819,203 on the current expenses of the government, and the funded debt amounting to $110,666,888, with its long arrears of interest, to provide for itself.

GOVERNMENT EXPENDITURE.

Public establishments, &c	$5,294,131
The army and the navy	4,809,377
Oficinas of recandation and branches of government	765,327
The national debt, interest thereon annually, and the sinking fund	3,584,690
The city government of city of Mexico	274,750
Total	$14,228,353

But we are of the opinion that the whole expenditure of the general government for the present year, even though the expenses of the army have been lessened, will not fall much short of 20,000,000 of dollars. Our reasons are, because in the above budget reforms and economies have been calculated upon which cannot be carried into execution; also, because several indispensable expenditures have been omitted, such as the repairing and preserving the public roads, and the payment of the interest of the national debt due to citizens in the country.

NATIONAL REVENUE.

The following table of the probable proceeds of all the sources of revenue will give a clear view of the real situation of the public treasury:—

Duties on imported goods	$4,500,000
Twenty per cent for material improvements	900,000
Twenty-five per cent for the Home Debt Sinking Fund	1,125,000
Ten per cent of importation duties, (on $3,500,000)	350,000
Twenty per cent of control entries, (on the same)	700,000
Tonnage duties	90,000
Duties on faro banks	20,000
Exportation duties	500,000
Circulation of coined money	300,000
Excise duties	3,500,000
Three per cent on mining products	450,000
The one real for stamping the same	220,000
Banking houses	150,000
Direct taxes	1,200,000
Stamped paper	150,000
The mails, or post-office	60,000
Lotteries	80,000
Bridge tolls	300,000
Pawnbroking establishments, safety papers to foreigners, escheated inheritances, salt works, playing cards, discounts on payments, with other minor and accidental incomings	405,000
Total	$15,000,000

COMPARISON.

Expenditure	$24,819,203
Revenue	15,000,000
Deficit	$9,819,203

THE NATIONAL DEBT.

The total amount of the debt owing by the Republic is divided into the in-

terior and exterior debt. The former arises from different obligations contracted during the vice-regal government and since the declaration of independence, and the latter originates in the loans contracted in London in the years 1823 and 1824.

Both these debts amount at the present time to the sum of $117,767,024, according to the following account:—

THE FOREIGN DEBT.

Its capital, according to the last convention, is £10,241,650, which, reduced to dollars, at the rate of $5 to the pound sterling, amounts to.		$51,208,250
To six dividends, owing since the 1st of January, 1853, to the end of December, 1855		4,608,741
Total		$55,816,991

INTERIOR OR HOME DEBT.

The total amount of this debt on the 31st of December, 1850, after the deductions fixed by the law of the same year, was $40,000,000; of this sum the Committee of Public Credit liquidated and paid $16,829,755 27, up to the 5th of January, 1855; in consequence of this, and other sums subsequently liquidated, this debt will not amount to more than		$30,000,000
Owing for interest to the end of 1855, on credits acknowledged and liquidated, up to the 1st of January of the same year		2,491,895
Debt contracted in the five succeeding years, and the debts made by the chiefs of the last revolution, which have been assumed by the present government		17,000,000
To the English convention	$4,323,428	
That of Father Moran	855,210	
		5,178,638
To the Spanish convention		6,680,000
To the French convention		600,000
Total		$61,950,033

RECAPITULATION.

Interior or home debt	$61,950,033
Foreign debt	55,816,991
Total	$117,767,024

NOTE.—The sum of $768,123, the amount of one dividend, is to be deducted from the interest due on the foreign debt. This sum, though it has not yet been paid, is very shortly to be paid out of funds which have been for this purpose collected in London.

MICHIGAN FINANCES.

The debt of the State of Michigan, July 1st, was as follows:—

Old debt—adjusted bonds due 1863	$1,722,685
Bonds of 1862, original issue	177,000
State prison bonds, 1859-60	60,000
Loan of 1858, in renewal, and due 1878	216,000
Temporary loan	50,000
Unadjusted bonds of old debt	100,000
Total debt	$2,325,685

A new loan of $216,000 was since asked for, and awarded at an average of something over one per cent premium. The bids amounted to over $833,000, and the entire amount was awarded to E. H. Hazleton & Co., of Detroit. The premiums on the amount of the loan amount to something over $2,000.

FINANCES OF MEMPHIS, TENNESSEE.

The post-bond indebtedness of the city of Memphis amounts to the sum of $1,536.000, payable as follows:—

In New York city	$1,294,000
In Philadelphia	242,000
Total	$1,536,000
Bonds issued to the Memphis and Lexington Railroad Company, secured by deed of trust on navy yard grounds	300,000
Total bonded indebtedness	$1,836,000

The navy yard bonds bear interest at the rate of 7 per cent per annum, and the company has disposed of $70,000 worth of the bonds, the interest on which is due and payable in this city on the 1st of July, and amounts to $2,450. The six per cent bonds of the city amount to $1,536,000, the interest on which is due and payable in New York and Philadelphia semi-annually, viz., on the first days of January and July in each year. The semi-annual interest on these bonds, due on the 1st of July, amounted to $46,080. The total amount of interest to be provided for on the 1st of July was as follows:—

On post-bonds payable in New York and Philadelphia	$46,080
On navy yard bonds payable in this city	2,450
Total interest	$48,530

The interest has always, heretofore, been promptly met, without embarrassment, and measures have been taken by the Finance Committee of the present Council to meet the July interest.

DEBT OF NORTH CAROLINA.

The following is a statement of the debt of North Carolina, with the year in which it will mature:—

1859	$200,000	1868	$6,000	1878	$4,000
1860	500,000	1869	26,500	1883	1,000,000
1861	40,000	1870	33,500	1884	630,000
1862	180,000	1871	40,000	1885	1,870,000
1864	41,000	1872	20,000	1886	748,000
1865	111,000	1875	24,000	1887	1,283,500
1866	59,000	1876	10,000	1888	185,000
1867	15,000	1877	3,000	Time not spec'd	231,005
Total					$6,715,505

In addition, the State has made the following indorsements:—

Wilmington and Raleigh Railroad	$250,000
Cape Fear and Deep River Navigation Company	300,000
Total indorsements	$550,000

The annual interest account is as follows:—

Payable in New York January 1st and July 1st	$213,450 00
Payable in New York April 1st and October 1st	116,220 00
Payable in New York on Cape Fear indorsement	18,000 00
Payable at Public Treasury, Raleigh	73,260 30
Total	$420,930 30

FINANCES OF THE CITY OF NEW ORLEANS.

We are indebted to Mr. Francis Turner, one of the State Assessors, for the following results of the assessment rolls for 1857 :—

AN ABSTRACT OF THE STATE ASSESSMENT ROLLS OF THE CITY OF NEW ORLEANS, AFTER OBJECTIONS AND CORRECTIONS HAVE BEEN MADE, FOR 1857.

Represented District.	Real estate.	Slaves.	Capital.	License.
First	$6,200,750	$685,600	$381,350	$9,505
Second	7,030,250	780,900	717,800	10,525
Third	20,400,625	821,800	14,191,000	83,875
Fourth	9,981,350	452,800	3,614,750	24,965
Fifth	7,509,400	756,100	1,168,850	24,350
Sixth	4,638,750	744,100	311,450	14,945
Seventh	2,907,450	325,250	284,900	9,415
Eighth	1,760,170	135,300	1,178,400	9,025
Ninth	2,277,830	283,600	163,950	7,575
Tenth	7,544,850	796,000	297,900	9,465
Real estate	$70,251,425	$5,781,450	$22,260,350	$203,645
Slaves	5,781,450			
Capital	22,260,350			
Total	$98,293,225			

State tax, 16¼ cents per $100	$163,822 04
Mill tax, 10 cents per $100	98,293 22
Internal improvements, 3¾ cents per $100	36,859 95
State licenses	203,645 00
Poll tax	8,181 00
Total State taxes	$510,801 21

In making out the above statement I am indebted to my colleagues, Messrs. Dufour, Durel, and Watkins, for their several recapitulations. In comparing the above statement with the returns of last year, I find there is an increase on real estate, slaves, and capital, of $7,105,030, and on licenses of $22,310.

VALUATION OF BOSTON.

The following is the valuation of Boston by wards for 1858 :—

Wards.	Real estate.	Personal.	Polls.	Wards.	Real estate.	Personal.	Polls.
1	$9,142,700	$3,259,100	3,521	8	$10,899,300	$4,741,900	2,097
2	5,618,100	589,800	3,460	9	7,770,700	2,960,600	1,974
3	6,950,600	2,739,500	2,205	10	7,942,100	2,582,600	2,567
4	37,592,600	35,977,200	3,059	11	13,840,600	4,448,800	3,557
5	5,818,000	2,296,700	2,153	12	7,557,700	2,064,100	3,624
6	23,192,300	20,438,400	1,935				
7	17,244,000	19,044,000	2,526	Total.	153,578,700	101,142,700	32,588

VALUATION AND TAXATION IN ROXBURY.

In Roxbury, this year, the rate of taxation on real and personal property will be $9 50 on $1,000, and the poll tax will be $1 71. The following is the valuation of the city by wards :—

Wards.	Polls.	Real.	Personal.	Wards.	Polls.	Real.	Personal.
1	1,031	$23,910,000	$553,600	4	654	$28,824,000	$1,256,600
2	904	16,200,000	369,200	5	626	3,364,600	1,397,000
3	1,114	21,348,000	1,596,200				
Total					4,329	$93,646,600	$5,172,600

PRIVATE BANKS OF CINCINNATI.

Below will be found a complete list of the returns made to the County Auditor by the various banking establishments of the city, for which we are indebted to the courtesy of John E. Bell, Esq., Deputy Auditor. The returns are made in accordance with the provisions of the "Act to tax the property of banks and bankers, so as to require all property employed in banking to bear a burden of taxation equal to that impoeed on the property of other persons," passed by the last Legislature.

The returns include the average amount of notes and bills discounted or purchased, the average amount of all moneys, effects, or dues of every description belonging to each house, loaned, invested, or otherwise used with a view to profit, or upon which the banker receives, or is entitled to receive, interest :—

Groesbeck & Co	$563,815	Sworn.
Kinney, Espy & Co	274,650	"
Evans, Swift & Hughes	105,000	"
Gilmore & Brotherton	100,000	"
Commercial Bank	92,530	"
Lafayette Banking Co	83,550	"
Nettleton, Lowry & Co	67,939	"
E. G. Burkam & Co	50,000	"
Fallis, Brown & Co	45,654	"
C. F. Adae & Co	39,300	"
George S. Wright & Co	30,000	"
A. G. Burt & Co	26,850	"
Wood, Lea & Co	21,576	"
Smith & Gilbert	20,000	"
Homans & Co	20,000	"
James F. Meline & Co	20,000	Refused to list.
G. H. Bussing & Co	17,322	Sworn.
J. F. Larkin	14,000	"
J. R Morton & Co	12,000	"
J. B. Ramsay	10,000	"
B. Bagley	9,700	Absent.
S. S. Davis	9,500	Sworn.
T. S. Goodman & Co	8,733	"
Johnson, Brothers & Co	8,000	"
C. E. Nourse & Co	5,000	"
S. S. Rowe	3,000	"
Total	$1,658,119	

THE AMOUNT OF SPECIE IN THE UNITED STATES.

At the commencement of 1850, the amount of gold and silver coin and bullion existing in the United States was estimated to be one hundred and twenty millions of dollars; the coinage at the United States Mint since 1850, has amounted to four hundred and ninety millions; the amount of specie brought into the country by immigrants since 1850, is estimated to be one hundred and twenty-five millions; the bullion on hand at the present time is estimated to be one hundred millions; making a total of eight hundred and thirty-five millions of dollars. The exports of specie from the United States since 1850, (less imports,) have amounted to three hundred and fifteen millions; leaving the amount of five hundred and twenty millions of dollars existing at the present time in the United States, in the shape of gold and silver coin and bullion.

The product of the California mines, since their discovery, has amounted to seven hundred and twenty-seven millions of dollars.

BANKS OF THE STATE OF NEW YORK.

The following is an official summary table showing the aggregate of the resources and liabilities of the banks of this State, as exhibited by their reports to the Banking Department of their condition on the morning of Saturday, the 19th day of June :—

	June, 1857.	June, 1858.
RESOURCES.		
Discounts	$190,803,832	$190,980,431
Overdrafts	507,187	337,289
Due by banks	11,643,830	13,859,406
Real estate	7,423,015	8,484,041
Specie	14,370,484	36,404,058
Cash items	23,737,436	16,923,450
Stocks, &c.	24,747,472	23,228,965
Bonds and mortgages	9,299,794	8,706,944
Bank notes	3,093,552	1,971,528
Do. suspended	771	5,774
Expense account	1,362,628	1,635,526
Add for cents	980	946
Total	$287,990,846	$302,588,358
LIABILITIES.		
Capital	$103,954,777	$114,690,541
Circulation	32,895,892	25,154,931
Profits	13,949,030	14,747,594
Due banks	21,319,817	36,469,584
Due others	1,010,575	876,235
Due State	3,254,877	3,130,387
Deposits	104,350,426	105,754,187
Other items	1,754,886	1,713,934
Add for cents	566	515
Total	$287,990,846	$302,588,358

The June, 1858, summary is made up from reports from 297 banks, including Luther Wright's Bank, winding up, and including Dover Plains Bank, new banking association. The difference in the totals was occasioned by a bank having failed to make a balance in its report.

VALUATION OF PROPERTY IN ST. LOUIS.

The return of the Auditor, July 21st, gives a statement of the assessed value of real and personal property, as appears by the collected lists returned to his office by the Court of Appeals :—

First ward	$6,443,965 86	Fifth ward	$15,121,431 82	Ninth ward	$5,704,145 79
Second...	3,662,219 78	Sixth	14,724,427 68	Tenth	8,000,115 25
Third.....	5,859,671 84	Seventh...	5,580,398 67		
Fourth ...	9,479,440 36	Eighth....	6,750,589 26	Total ..	81,326,405 76

The above returns show an increase over last year of $7,664,361 84.

FINANCES OF PORTSMOUTH, NEW HAMPSHIRE.

The rate of taxation in Portsmouth is 85½ cents, and the appropriations for each year since the establishment of the city government have been as follows :—

1850–1.....	$40,543 76	1853–4.....	$41,189 99	1857–8.....	$48,726 87
1851–2.....	41,716 77	1855–6.....	47,638 59	1858–9.....	51,817 58
1852–3.....	41,075 70	1856–7.....	45,025 78		

NEW USURY LAW OF CANADA.

AN ACT TO AMEND THE LAWS OF THIS PROVINCE REGULATING THE RATE OF INTEREST.

Whereas, it is expedient to amend the laws relating to the interest of money, and for that purpose to repeal the third section of the act of the Parliament of of this Province, passed in the sixteenth year of Her Majesty's reign, and entitled, "An Act to modify the usury laws," as to future contracts; therefore, Her Majesty, by and with the consent of the Legislative Council and Assembly of Canada, enacts as follows:—

1. From and after the passing of this act, the third section of the act mentioned in the preamble of this act shall be, and the same is hereby repealed, except only as to contracts made after it came into force and before the passing of this act, as to which it shall remain in force.

2. It shall be lawful for any person or persons, other than those excepted in this act, to stipulate for, allow, and exact, on any contract or agreement whatsoever, any rate of interest or discount which may be agreed upon.

3. It shall not be lawful for any bank incorporated by any act of the Legislature of this Province, or of the late Provinces of Upper or Lower Canada respectively, or by royal charter, nor of any bank established or to be established under the provisions of the act of the Legislature of this Province, passed in the session thereof, held in the thirteenth and fourteenth years of Her Majesty's reign, entitled, "An Act to establish freedom of banking in this Province, and for other purposes relative to banks and banking," to stipulate for, take, reserve, or exact a higher discount or interest than seven per centum per annum; and any rate of interest not exceeding seven per centum per annum may be received and taken in advance by any such bank; and it shall be lawful for any such bank to allow and pay any rate of interest whatsoever upon moneys deposited in such bank.

4. Notwithstanding anything to the contrary in the act passed in the session held in the nineteenth and twentieth years of Her Majesty's reign, chapter forty-eight, entitled, "An Act for enabling all the chartered banks in this Province to enjoy a certain privilege therein mentioned," or in any other act or law, it shall not be lawful for any bank or banking institution, carrying on business as such in this Province, in discounting at any of its places or seats of business, branches, agencies, or offices of discount and deposit, any note, bill, or other negotiable security or paper, payable at any other of its own places or seats of business, branches, agencies, or offices of discount and deposit within this Province, to receive or retain, in addition to the discount, any amount exceeding the following rates per centum, according to the time it has to run, on the amount of such note, bill, or other negotiable security or paper, to defray the expenses attending the collection of such bill, note, or other negotiable security or paper; that is to say, under thirty days, one-eighth of one per cent; thirty days and over, but under sixty days, one-fourth of one per cent; sixty days and over, but under ninety days, three-eighths of one per cent; ninety days and over, one-half per cent.

5. Six per cent per annum shall continue to be the rate of interest in all cases, where by the agreement of the parties or by law interest is payable, and no rate has been fixed by the parties or by the law.

6. Nothing in this act shall be construed to apply to any corporation, or company, or association of persons, not being a bank, heretofore authorized by law to lend or borrow money.

IRISH ENCUMBERED ESTATES.

The Encumbered Estates Court in Ireland has been replaced by the Landed Estates Court, for which an act of Parliament has just been obtained. During the existence of the old court the total amount expended in the purchase of property under the control of the court was £22,000,000, of which £3,000,000 were invested by English and Scotch purchasers. The number of estates sold was 2,380, divided into more than 11,000 lots, and 8,235 conveyances have been executed by the Commissioners.

BANKS OF MISSOURI.

The following is a semi-annual statement of all the banks of Missouri, July 1, 1858 :—

RESOURCES.		LIABILITIES.	
Capital in branches.....	$722,422 25	Capital owned by State....	$963,490 10
Notes discounted.....	2,925,019 05	Capital own'd by individuals	2,552,146 20
Exchange matured.....	418,976 62	Due depositors.....	2,653,383 29
Exchange maturing.....	2,235,826 57	Unpaid dividends.....	5,042 84
Suspended debt.....	67,940 64	Interest and exchange.....	342,654 95
Due from banks.....	475,525 04	Due to banks.....	768,028 76
Sundry accounts.....	118,468 08	Capit'l furnish'd by par'nt b'k	759,342 25
Notes of other banks	1,109,020 00	Due parent bank on account	274,468 96
Coin.....	3,488,186 51	Profit & loss & c'nting'nt fund	88,987 24
Circulation on hand.....	1,186,295 00	Circulati'n rec'iv'd fr'm com'r	4,851,310 00
Real estate.....	144,650 83		
State bonds.....	266,884 00	Total.....	18,209,214 59
Total.....	18,209,214 59		

FINANCES OF PORTLAND, MAINE.

The valuation and taxes of Portland have been as follows :—

	Real.	Personal.	Total.	Polls.	Taxes.
1857.....	$12,617,929	$9,755,800	$22,373,729	3,240	$180,122
1858.....	12,901,690	9,338,600	22,240,290	3,269	193,895
Increase.....	$283,761	.....	.....	29	$13,773
Decrease.....	.....	$417,700	$133,439	...	.....

A decrease in personal estate of $417,700, has been principally in the reduced value and loss of shipping.

WEALTH AND RESOURCES OF MISSISSIPPI.

The total value of lands in the State was estimated at the assessment of 1857 at $141,747,536 37, showing the enormous increase over the assessment of 1854 of $50,880,460 70. The number of taxable slaves in the State in 1854 was 326,861, and in 1858 the number was 368,182, being an increase of 42,163, and an increase in value, rating each slave at $600, of $25,297,800. Within the period of three years the land and slave property has advanced in value in the aggregate, $76,178,260 70. The value of the entire property in slaves may be safely computed at $220,909,200, which, added to the estimate of the land, would make as the value of the two interests $462,656,736.

BRITISH INCOME TAX.

A Parliamentary return recently issued shows that in 1853 the income tax of 7d. in the pound on incomes of £150 and upwards, produced £5,388,691 ; in 1854, 7d. in the pound on £150 and upwards, and 5d. on £100 to £150, £6,001,028 ; in 1855, 1s. 2d. in the pound on £150 and upwards, and 10d. on £100 to £150, £12,086,522 ; in 1856, 1s. 4d. in the pound on £150 and upwards, and 11½d. on £100 to £150, £13,942,795 ; and in 1857, the same poundage yielded £14,286,032.

WEALTH OF ILLINOIS.

By returns of the County Assessors at the State Auditor's office of all except a few of the counties, it appears that the whole value of the real and personal estate, according to the assessment of 1857, is $407,477,367. The assessment of 1855 amounted to $333,350,340, which shows an increase in the taxable property of the State of $74,227,127—an increase of 22 per cent.

STATISTICS OF TRADE AND COMMERCE.

APALACHICOLA, FLORIDA.

The Coast Survey of the United States, one of the greatest national works ever undertaken, is progressing surely, steadily, and accurately—not with the degree of rapidity that was expected by those who framed the original law; but yet as fast as any undertaking of the kind ought to proceed. Though broken at intervals, the triangulation, topography, and hydrography extend from Maine to Texas. All the principal harbors, bays, and sounds are in course of completion, and much has been done on the ocean coast. Innumerable charts have already been published, and more are continually in course of projection. Discoveries and developments of the most important character are made almost daily, and no sooner does this occur than information of the fact is transmitted throughout the world.

And yet (would it be believed?) this great national work has the most bitter enemies; who, by various means, endeavor to poison the ears of our legislators, exclaiming against the extortionate demand for the annual appropriation to continue the survey, intimating that it might be done more economically—and by whom?

Now, the truth is, that the yearly appropriation is niggardly enough—contemptible for a country like ours; and were it not for the excellent management of the superintendent of the work, scarcely anything could be done with the means allowed.

Through the Coast Survey, the attention of the commercial community at the South, and more especially in Middle Georgia and West Florida, has recently been turned towards Apalachicola. Although this place has for a number of years been a cotton mart of no little importance, an increase in the trade of that staple, as well as the opening of new sources of commerce, must result from recent developments and discoveries.

During the last surveying season on the Florida coast, amongst other things accomplished, a new channel into St. George's Sound, with not less than twenty feet water, was discovered by the hydrographic chief of the party, from whom it has taken its name. As this inlet has three or four feet more water than is ever found on the bar of the East Pass, (hitherto the deepest channel into the sound known to the pilots,) its importance will at once be understood. Vessels capable of carrying very large cargoes of cotton will now be able to trade to Apalachicola, thus saving expense to shippers.

Besides, along the banks of the Apalachicola River there are forests of the very best pine and oak, and ships that have gone to this port for heavy timber have been in the habit of receiving it on board inside the harbor, until loaded down to 16 or 16½ feet, and then dropping outside the bar of the East Pass to complete their cargoes. Here they often lie for weeks, for it is only during extremely moderate weather that rafts can be taken to them, and though the holding-ground is good, there is no shelter from the sea. When the channel, whose existence has been determined, comes to be buoyed out, its advantages to these

vessels will be incalculable. Under Dog Island, they may load without delay down to nineteen or twenty feet, and then be carried to sea.

Below we give the official reports of the developments and discoveries made in the vicinity of St. George's Sound during the past season :—

SAVANNAH, GA., April 12, 1858.

SIR :—I have the honor to communicate, for the consideration of the Light-house Board, an extract from a report recently made by Lieut. Commanding J. K. Duer, U. S. N., Assistant in the Coast Survey, at present engaged in the hydrography of St. George's Sound, Florida :—

"The Coast Survey signal situated on the easternmost point of St. Vincent's Island, at the West Pass of St. George's Sound, has been made a beacon, and may be used as a guide by vessels drawing less than eleven feet water.

"I would respectfully suggest that this point be marked in a permanent manner, so that the beacon may be replaced if washed away in a gale—an occurrence by no means unlikely, as it is situated on a low sand beach. A durable beacon erected here would be very serviceable to coasters, as well as to the pilots of the place.

"The directions hereto appended, if strictly observed, will carry vessels of the above limit of draught safely in, thus saving the time and distance unavoidable in following the regular channel.

"*To enter West Pass, St. George's Sound, with vessels drawing less than eleven feet water* :—With the lighthouse on Cape St. George bearing east, (by compass.) and when in four or four-and-a half fathoms, bring the beacon on St. Vincent's Island to bear northeast, and run directly for it until the lighthouse bears southeast by east with the beach of St. Vincent's Island close aboard, then haul up east by north, keeping on this course until inside both points of the entrance. Here vessels may anchor in from three to three-and-a-half fathoms, with good holding-ground.

"The beacon is white, and can readily be seen at the distance necessary to get the bearing. It is of the form of a pyramid, and neither of the pilot's ranges (which are of entirely different shape, and stand considerably to the westward,) must be mistaken for it." Very respectfully, yours,

A. D. BACHE, Supt. U. S. Coast Survey.

Hon. HOWELL COBB, Secretary of the Treasury.

COAST SURVEY OFFICE, May 5, 1858.

SIR :—I have the honor to communicate extracts from a report in reference to developments made in St. George's Sound, western coast of Florida peninsula, by Lieut. Commanding J. K. Duer, U. S. N., Assistant Coast Survey. The extracts show important special results obtained in the prosecution of the regular hydrography of that quarter, and contain, also, sailing directions for navigating a channel sounded out near Cape St. George's lighthouse :—

"I. The shoal off Cape St. George's lighthouse (commonly designated as the Cape Shoal) is composed of detached reefs, extending in a south and south by east direction from the lighthouse, with channels of various depths running between them. The only one, however, that can be recommended for navigation is about four miles from the land. This is quite wide, and the soundings in it vary from four fathoms to seventeen feet, the latter being the least water found. On the outer edge of it there are reefs having but ten or eleven feet on them, and on the inner edge others with but seven or eight feet. In both instances the water shoals very suddenly, and breaks unless the sea is very smooth.

"The end of this shoal is about six miles from the point of Cape St. George. There the water deepens to three fathoms, and, by taking the channel, coastwise vessels may save themselves great loss of time.

"The following directions will carry vessels through it :—

"*Bound to the eastward*—From the bar at the West Pass steer S. E. (by compass) until the lighthouse on Cape St. George bears N. by W., then haul up east, and when in five fathoms the channel has been cleared.

"*Bound to the westward*—When about four miles from the land, and in five

fathoms water, get the lighthouse to bear N. N. W., and steer east until it bears N. by W., then steer N. W., and find four-and-a-half fathoms. Continue on this course if bound to Apalachicola. When crossing the shoal the lead should be kept constantly going, as the set of the currents is always uncertain.

"This channel might be easily buoyed out. Two large buoys only would be requisite.

"II. Very near midchannel, and just inside the bar of the West Pass, there is a lump having only nine feet of water on it at the low tides, which occur after a strong northerly wind. This is a continuation of a spit which puts out from the East Breakers, and there is deeper water between them and the lump.

"The following bearings show its position:—

"Lighthouse on Cape St. George bearing E. by S. (true.)

"Westernmost point of St. George's Island bearing N. E. by E. (true.)

"III. Outside the West Breakers of the East Pass, and near the easternmost point of St. George's Island, there is a shoal having upon it but fifteen or sixteen feet, while all around there is from three-and-a-half to four-and-a-half fathoms.

"Dog Island lighthouse bears from it S. W. ¼ S., (true,) and the east end of St. George's Island, S. by W. ¼ W." Very respectfully, yours,

A. D. BACHE, Superintendent.

Hon. HOWELL COBB, Secretary of the Treasury.

COAST SURVEY OFFICE, May 18, 1858.

SIR:—I have the honor to communicate the discovery of a new channel leading into St. George's Sound, Florida, the sound of which Apalachicola Bay is an arm, by the Coast Survey parties working there. The channel has been sounded out by Lieut. Commanding J. K. Duer, U. S. N., Assistant in the Coast Survey, who gives the following description of it:—

* * "The fact is established that an excellent channel exists from sea to the sound, (St. George's,) running close-in with the north shore of Dog Island. with not less than twenty-one or twenty-two feet of water, (twenty or twenty-one feet at low water.)

"It is highly probable that deeper water may yet be found near the eastern end of the island.

"By this channel, vessels made be carried from sea to a good anchorage in four fathoms, under a reef, and from there around the easternmost point and shoal of Dog Island, with not less than twenty-one or twenty-two feet, (twenty or twenty-one at low water,) as just stated. The general depth is four fathoms or more.

"On the bar of the East Pass the depth at high tides is usually seventeen feet, never exceeding three fathoms. * * * * Below are given directions for entering the new channel from sea, and for running into the four fathom anchorage under the reef. Beyond this, it would not be safe to go without a pilot.

"*Directions*—Bring Dog Island lighthouse to bear west, (by compass,) and Southwest Cape N. E. ¼ N. On finding five-and-a-half or six fathoms water, the course hence is north, until the easternmost end of Dog Island bears S. W. by W. ¼ W., or until the water shoals off the east point of Alligator Harbor. From here haul up W. S. W., and keep this course until well inside the reef, which can readily be discerned by colored water or breakers.

Between Southwest Cape and the reef, the channel now reported is very deep, having not less than thirty-one feet, until well in towards the land, where soundings give four fathoms.

"To enter St. George's Sound by this new pass, a lighthouse on Southwest Cape will be indispensable, as well as another light on Dog Island. A beacon should be placed at each point immediately."

The channel also should be marked by buoys. I would respectfully request that a copy of this communication may be transmitted to the Lighthouse Board, and that authority be given to publish it in the usual form for the information of navigators. Very respectfully, yours,

A. D. BACHE, Superintendent.

Hon. HOWELL COBB, Secretary of the Treasury.

COMMERCE OF NEW ORLEANS.

Referring to page 603, (vol. xxxvii.,) for the business of the year 1857, and previous years back to 1842, we now append, from the New Orleans *Price Current*, the tables for 1858. That paper remarks:—

The year opened with great buoyancy in prices and flattering prospects with regard to the business of the season. The crops of cotton and sugar, it was known, would not be large, and in view of the injuries suffered from late spring frosts and subsequent unfavorable weather, it was apprehended that the former would fall short of the crop of the preceding year. But it was expected that this deficiency would be counterbalanced by a continuance of a high range of prices for that and other staples. This favorable prospect, however, was changed by the commercial and financial revulsion, which, originating at the North, spread disaster through the country, and resulted in a general change of market values and prospects. There were some weeks of gloom and depression, many losses, and some heavy failures, but the crisis here was soon passed, and trade had resumed its usual channels by the time active business had fairly opened. Business became settled on a more secure basis, and the feverish and excited condition of the markets, which had prevailed for months preceding the revulsion, gave place to a healthy system of trade, prices having fallen from the stilted position which they had occupied, to a more reasonable and natural level. With a favorable autumn, the cotton crop recovered in a measure from the disasters of a late spring, and has proved larger than had been anticipated, exceeding that of any previous years except 1855–56 and 1852–53. In valuation it exceeds last year's crop $1,872,261.

The cane crop, which had also greatly suffered from a cold spring, late frosts, and early summer heat, partially recovered, but was again seriously injured by heavy frosts in November. The yield has consequently fallen considerably short of an average crop, though almost four times as large as that of last year, which was nearly an entire failure, and exceeds it in valuation about $9,763,248.

The crop of tobacco was large, and the receipts at this port have exceeded those of any previous years except 1851–52 and 1842–43. In valuation, there is an increase as compared with last year of $1,736,207.

VALUE OF PRODUCE OF THE INTERIOR.

TABLE SHOWING THE RECEIPTS OF THE PRINCIPAL ARTICLES FROM THE INTERIOR DURING THE YEAR ENDING 31ST AUGUST, 1858, WITH THEIR ESTIMATED AVERAGE AND TOTAL VALUE.

Articles.	Amount.	Average price.	Value.
Apples.....bbls.	76,952	$5 00	$384,760
Bacon, assorted.....hhds. & casks	35,557	90 00	3,200,130
Bacon, assorted.....boxes	2,143	45 00	96,435
Bacon hams.....hhds. & trcs.	32,451	73 00	2,368,923
Bacon in bulk.....lbs.	343,338	9	30,944
Bagging.....pieces	35,691	13 00	463,983
Bale rope.....coils	133,276	8 00	1,066,208
Beans.....bbls.	7,678	5 00	38,390
Butter.....kegs and firkins	33,783	10 00	337,830
Butter.....bbls.	1,227	35 00	42,945
Beeswax.....	41	50 00	2,050
Beef.....	27,130	13 50	366,255
Beef.....trcs.	5,547	23 00	127,581
Beef, dried.....lbs.	30,450	12	3,654
Cotton..... bales	1,678,616	52 50	88,127,340
Corn-meal.....bbls.	700	5 00	3,500
Corn in ear.....	62,405	50	31,202
Corn, shelled.....sacks	1,291,731	1 45	1,873,009
Cheese.....boxes	54,447	3 50	190,564
Candles.....	72,183	8 00	577,464
Cider.....bbls.	83	8 00	664
Coal, Western.....	2,501,000	50	1,250,500

Articles.		Amount.	Average price.	Value.
Dried apples and peaches		3,809	$9 00	$34,281
Feathers	bags	886	50 00	44,300
Flaxseed	trcs.	1,031	12 00	12,372
Flour	bbls.	1,538,742	4 60	7,078,213
Furs	hhds., bundles, & boxes	469	.. ..	160,000
Glassware	packages	20,662	5 00	103,310
Hemp	bales	13,787	25 00	344,675
Hides	No.	103,174	3 00	309,522
Hay	bales	84,287	3 25	273,932
Iron, pig	tons	257	35 00	8,995
Lard	bbls. & trcs.	112,970	35 00	3,953,950
Lard	kegs	93,240	7 00	652,680
Leather	bundles	5,689	30 00	170,670
Lime, Western	bbls.	13,848	1 30	17,995
Lead	pigs	112,147	6 00	672,882
Lead, bar	kegs & boxes	1,242	21 00	26,082
Lead, white	kegs	205	2 00	410
Molasses, (estimated crop)	galls.	19,578,790	23¼	4,601,015
Oats	bbls. & sacks	568,649	1 20	682,378
Onions	bbls.	12,135	5 00	60,675
Oil, linseed		208	35 00	7,280
Oil, castor		1,472	60 00	88,320
Oil, lard		12,800	35 00	448,000
Potatoes		210,481	2 25	473,582
Pork	trcs. & bbls.	278,480	17 75	4,948,020
Pork	boxes	200	40 00	8,000
Pork	hhds.	4,330	70 00	303,100
Pork in bulk	lbs.	7,357,291	7	515,010
Porter and ale	bbls.	6,350	10 00	63,500
Packing yarn	reels	2,061	5 00	10,305
Rum	bbls.	3,000	20 00	60,000
Skins, deer	packs	1,712	20 00	34,240
Shingles	M.	6,100	3 00	18,300
Shot	kegs	1,871	25 00	46,775
Soap	boxes	9,857	4 00	39,428
Staves	M.	11,500	65 00	747,500
Sugar, (estimated crop)	hhds.	379,697	64 00	17,900,608
Spanish moss	bales	4,201	16 00	67,216
Tallow	bbls.	905	30 00	27,150
Tobacco, leaf	hhds.	75,168	153 00	11,500,704
Tobacco, stripe		9,514	212 00	2,016,968
Tobacco, stems		2,459	45 00	110,655
Tobacco, chewing	kegs & boxes	3,006	25 00	75,150
Twine	bundles & boxes	4,524	11 00	49,764
Vinegar	bbls.	1,149	4 00	4,596
Whisky		125,207	8 00	1,001,656
Wheat	bbls. & sacks	401,275	2 00	802,550
Other various articles, estimated at				6,000,000
Total value				$167,155,546
Total in 1856–7				158,061,369
Total in 1855–6				144,256,081
Total in 1854–5				117,106,823
Total in 1853–4				115,336,798

The aggregate shows again a large increase in value. The imports of specie have been larger than ever before as follows :—

IMPORTS OF SPECIE FOR TWELVE YEARS, FROM 1ST SEPTEMBER TO 31ST AUGUST.

1857–58 ...	$13,268,013	1853–54 ...	$6,967,056	1849–50 ...	$3,792,662
1856–57 ...	6,500,015	1852–53 ...	7,865,226	1848–49 ...	2,501,250
1855–56 ...	4,913,540	1851–52 ...	6,278,523	1847–48 ...	1,845,808
1854–55 ...	3,746,087	1850–51 ...	7,937,119	1846–47 ...	6,680,050

The *Picayune* of the 1st publishes the following comparative statement of imports, through the Custom-house of New Orleans, for the fiscal years ending the 30th of June of each year, of 1856–57–58 :—

	1856.	1857.	1858.
Dutiable	$8,000,588	$16,417,084	$10,248,002
Free	6,417,596	6,637,076	4,818,015
Specie and bullion	1,775,148	1,927,030	4,621,246
Total	$17,183,327	$24,981,150	$19,687,263
Exports	80,547,968	91,514,286	88,382,438

It will be seen that the imports into New Orleans have never exceeded the present year, except for the year ending the 30th of June, 1857. At all the Northern ports there has been a great falling off—much larger, *pro rata*, than in New Orleans.

It will be observed that there is a decrease in the amount of exports from last year of a little over $3,000,000.

COMMERCE OF THE SANDWICH ISLANDS.

The position of the Sandwich Islands, and their being the refitting station for our Pacific and Indian whaling fleets, give to them a prominence which the amount of trade does not seem to warrant. As the whaling rendezvous, it is interesting to note their commercial progress, as an index of the growth of one of the most important branches of our marine. The fact that the Sandwich Islands are on the California and India route, also adds to their importance.

The present condition of the islands is shown by the following financial exhibit for the two years ending March 31, 1858 :—

Cash in treasury, April 1st, 1856	$28,096
Receipts for two years ending March 31, 1858	639,042
Total	$667,138
Expenditures same period	666,788
Balance in treasury, March 31, 1858	$350
The liabilities of the treasury, March 31, 1858	$60,679
The assets of the treasury, March 31, 1858	7,301
Balance	$53,378

This shows a small debt, but not as properous a condition of the treasury as could be hoped for.

	Exports.		Total	
	Domestic.	Foreign.	exports.	Imports.
1853	$281,599	$191,398	$472,996	$1,281,951 18
1854	274,029	311,092	585,122	1,396,786 24
1855	274,793	297,859	572,652	1,306,355 89
1856	378,999	204,545	583,544	1,152,412 99
1857	422,304	222,222	645,526	1,130,165 41

It will be seen from the above statement of imports and exports that the state of foreign trade has materially improved during the last two years, for while the imports in 1856 and 1857 were $420,563 73 *less* than those of 1854 and 1855, the exports of domestic goods during the two former years were $253,479 88 *more* than those of 1854 and 1855. This proves that during the last two years the productive powers of the kingdom have been *increasing* rapidly.

The navigation returns for the past two years have not been made up, but we find that for 1855 and 1856 the arrival of vessels were—

	National vessels.	Merchant vessels.	Tonnage.	Number whalers.
1855	13	154	51,804	468
1856	9	123	42,213	366

The moderate success of the whaling fleet for two years, and the low price of oil for the past year, have been fully compensated by the extraordinary high price of bone, so that in some vessels the return from bone was almost equal to that of oil.

The revenue of the different islands for the two years ending March 31, 1858, is shown as follows :—

	Revenue.	Expenses.
Revenue from Oahu	$474,347 94	$517,185 99
" Maui	78,745 02	67,472 33
" Hawaii	65,080 37	55,015 69
" Kauai	20,867 90	27,114 82
Total revenue	$639,041 23	$666,788 83
The cash on hand, April 1st, 1858, was		$349 24
The estimated receipts for the two years ending March 31, 1860, are		592,671 00
Total resources		$593,020 24
The estimated expenditures for the same period, amount to	$736,087 88	
To which add balances of appropriations of 1856, due and unpaid March 31, 1858	2,579 04	
		738,666 92
Leaving the sum of excess of estimated expenditure over estimated receipts.		$145,646 62

These estimates are based upon the tariff and rates and taxation now existing. Under the provisions of the new code, (if passed,) the revenue from taxes and other sources will be somewhat increased. The ratification of the new French treaty, too, will bring into force the new tariff bill, passed at the session of 1855, by which the revenue from duties will be still further augmented.

It is as indisputable as creditable to the enterprise of our whalers, that our whaling marine is the only one that is increasing, and our whalers of late years have stated that the only probable exception to this in the future is with the Sandwich Islands, the ships from which have shown an enterprise and met with success only equaled by the American vessels. In our last files from these islands we find the report of the Minister of Finance contains this statement :—

Another interest which has lately sprung up amongst us, and which promises to become of the highest importance to the kingdom, deserves also your attentive consideration. I allude to Hawaiian whaling. Our whaling fleet now numbers fifteen vessels. Our proximity to the whaling grounds, and our facilities, present and prospective, for the fitting out of whale ships, are likely to attract to us foreigners possessed of the capital, skill, and resources necessary for the successful prosecution of this profitable branch of business. I need not remind you that any increase of our capital from foreign sources is, in a national point of view, as valuable to us as if it belonged to our own people, for if invested in this business, it must necessarily lead to an increased demand for all those of our products which are employed in it, thereby furnishing for our own people that best of all markets—a home market. It will be for you to inquire into the propriety and expediency of encouraging this business amongst us, by giving Hawaiian sailors,

in vessels under the Hawaiian flag, some privileges and exemptions not accorded to them when sailing under the flags of other nations.

The whaling vessels from the United States have brought in better returns than any branch of shipping; and we learn that from New Bedford and New London there is an activity unknown in the ship-yards of other ports.

IMPORTS OF WOOL INTO BOSTON FOR THE FIRST HALF YEAR.

	1855.	1856.	1857.	1858.
England	$122,245	$37,517	$27,346	$134,752
Buenos Ayres	440,558	1,356,748	789,614	1,000,814
France	9,767	33,691	348,997	19,180
Turkey	1,332,537	1,390,430	1,812,187	1,272,671
Cape of Good Hope	117,683	133,427	371,864	799,310
Malta	.....	76,500	191,660	.....
Chili and Peru	1,526,568	1,647,082	1,756,961	2,523,459
Russia	.....	.....	291,054	.....
Sundries	3,660	.....	2,810	68,405
East Indies	.....	.....	.....	64,213
	$3,553,018	$4,785,395	$5,592,493	$5,882,804

TOBACCO TRADE OF RICHMOND, VIRGINA.

The following are authentic returns of the tobacco trade of Richmond, showing the whole amount of manufactured tobacco exported from the dock in sailing vessels for twelve months ending 30th June last; the amount exported by steamers to New York, Philadelphia, and Baltimore for six months, ending at the same period; together with the amount of manufactured and leaf tobacco exported to foreign countries, and the quantity of tobacco inspected in Richmond for the year ending 30th June last; as also the quantity inspected in the whole State for ten months ending August 1st :—

AMOUNT OF MANUFACTURED TOBACCO EXPORTED IN SAILING VESSELS FROM THE DOCK IN THIS CITY FOR SIX MONTHS, ENDING JANUARY 1, 1858.

Six months ending January 1	boxes	37,282
January	2,113	
February	3,627	
March	5,200	
April	5,136	
May	4,292	
June	3,778	
		23,145
For year ending June 30, 1858		60,427

AMOUNT OF MANUFACTURED TOBACCO EXPORTED FROM THE WHARVES BY STEAMERS TO NEW YORK, PHILADELPHIA, AND BALTIMORE, FOR SIX MONTHS, ENDING JUNE 30, 1858.

	New York, boxes.	Philadelphia, boxes.	Baltimore, boxes.
January	2,482	1,476	2,130
February	3,611	2,881	2,912
March	10,481	4,972	4,576
April	11,095	3,389	5,195
May	12,719	3,467	8,343
June	13,227	3,811	10,796
Total	53,615	19,946	33,952

AMOUNT OF MANUFACTURED TOBACCO EXPORTED TO FOREIGN COUNTRIES FROM JULY 1, 1857, TO JULY 1, 1858.

For quarter ending September 30, 1857.....lbs.	29,123
" " December 31, 1857.....	14,878
For six months, from January 1, 1858, to 1st July last.....	10,235
Total	54,236

It will be seen that the exports of manufactured tobacco to foreign countries are very limited, being confined altogether to South America, where the duty upon it is comparatively light. The trade in this article is variable and irregular, as may be seen by the comparative exhibits of the first and last months of the year :—

AMOUNT OF LEAF TOBACCO AND STEMS EXPORTED TO FOREIGN COUNTRIES FROM 1st JULY, 1857, TO 1st JULY, 1858.

For six months ending 31st December, 1857.....bales	13,503
For quarter ending 31st March, 1858	3,853
For quarter ending 30th June, 1858.....	8,616
Total for year ending 30th June, 1858	25,977
Amount of stems, tobacco alone, exported for year ending 30th June, 1858	7,500
Amount of leaf tobacco exported within the same period.....	18,477
Amount of tobacco inspected in Richmond for twelve months, commencing 1st July, 1857, and ending 30th June, 1858.....	37,082
Amount of tobacco inspected in the whole State for ten months, from the 1st October, 1857, to 1st instant.....	55,852

Against 45,000, or thereabouts, within the same period of the year previous. The inspections for the two months of August and September, 1857, I was unable to ascertain.

These returns have been carefully prepared, and will be found perfectly accurate. It will be seen from the comparative exhibit given of the exports of manufactured tobacco to New York, Philadelphia, and Baltimore, that the exports to New York are nearly equal to those made to the other two, the difference in favor of the latter being but two hundred and eighty-three boxes. The disparity was considerably greater a few years ago, but it is steadily decreasing as the facilities of steam communication with New York increase.

EXPORTS OF CUBA.

The Havana *Diario* of the 17th, gives the following as a complete statement of the exports of the island, for the first six months of the present year, in comparison with the same time last year :—

	1857.	1858.		1857.	1858.
Sugar.....boxes	471,291	590,000	Honey, pure..bocoyes	26,655	15,287
Brandy .....pipes	7,830	8,632	Honey, in comb...trcs.	1,678	1,173
Coffee.....arrobes	10,824	16,843	Tobacco, twisted..lbs.	75,886	58,258
Wax.....	25,465	22,548	Tobacco, in leaf.....	949,007	1,482,055

CONSUMPTION OF TOBACCO IN FRANCE.

The *Genie Industriel* says that it is difficult to account for the tremendous increase, during the last few years, of the consumption of tobacco in France; but that it has increased, and that enormously, the following figures will show :—In 1830, the value of tobacco consumed was about $13,000,000. In 1840, it had increased to $19,000,000. In 1850, it attained $24,000,000, and in 1857 the sum of nearly $35,000,000 was puffed away in smoke.

GENERAL STATISTICS OF SOUTH AMERICAN STATES,

EXHIBITING THEIR AREA, POPULATION, COMMERCE, REVENUE, DEBTS, ETC., FOR THE OFFICIAL YEAR 1855. COMPILED BY DR. R. S. FISHER.

States and countries.	Total commerce. Exports.	Total commerce. Imports.	Commerce with U. States. Exports from U. States.	Commerce with U. States. Imports into U. States.
Venezuela	$5,495,270	$4,994,244	$1,223,449	$3,616,869
New Granada	7,929,350	6,102,738	1,062,945	1,799,672
Ecuador	2,490,639	2,486,706	66,092	12,553
Brazil	50,993,827	50,104,442	4,261,273	15,218,935
Guiana, British	7,026,661	4,582,491	824,932	107,180
" Dutch	1,150,841	835,024	248,606	206,633
" French	5,239,672	4,927,835	80,618	8,546
Bolivia	3,927,333	3,721,989	.....	.....
Peru	16,880,303	9,087,894	870,556	597,546
Chile	19,180,589	25,988,925	3,426,257	3,518,896
Argentine Confederation Buenos Ayres	15,240,986	11,394,693	969,428	2,545,087
Paraguay	777,457	585,528	.....	.....
Uruguay	8,791,205	5,836,212	422,172	242,709
Patagonia, etc	.....	.....	.....	.....
Falkland Islands	95,217	105,311	.....	19,500
Grand total	$145,219,360	$132,758,227	$13,455,417	$27,894,126

States and countries.	Area of sq. miles.	Total population.	Population to sq. mile.	Capitals of States, etc.	Popul't'n to capitals.
Venezuela	426,712	1,361,386	3.19	Caraccas	58,800
New Granada	521,948	2,417,819	4.63	S. Fe de Bogota	45,000
Ecuador	287,638	691,967	2.41	Quito	65,000
Brazil	2,973,400	7,060,000	2.37	Rio de Janeiro	266,000
Guiana, British	96,114	139,219	1.45	Georgetown	25,500
" Dutch	59,765	69,186	1 16	Paramaraibo	20,000
" French	27,560	27,842	1.01	Cayenne	5,000
Bolivia	473,298	2,326,126	4.91	Chuquisaca	26,000
Peru	496,726	2,266,697	4.54	Lima	100,000
Chile	249,252	1,439,126	5.76	Santiago	78,000
Argentine Confederation	590,739	1,106,600	1.79	Parana	6,000
Buenos Ayres	127,681	361,926	2.83	Buenos Ayres	100,000
Paraguay	72,106	306,609	4.25	Asungion	12,000
Uruguay	73,538	157,982	2.14	Montevideo	16,000
Patagonia, etc	281,927	100,000	0.35	.....	.....
Falkland Islands	6,297	3,148	0.50	Port Stanley	500
Grand total	6,767,401	19,885,633	2.93		.....

States and countries.	Revenue. Income.	Revenue. Exp'nditur's.	Liabilities. Foreign.	Liabilities. Domestic.	Liabilities. Paper money.	Liabilities. Total.
Venezuela	$2,705,055	$8,248,031	$16,769,770	$1,522,725	.....	$18,292,495
N. Granada	2,114,459	2,866,576	18,530,444	18,530,444	.....	37,060,888
Ecuador	171,608	169,812	7,122,375	92,324	.....	7,214,699
Brazil	26,662,619	21,488,972	27,940,140	31,181,766	$7,625,293	66,747,199
Guiana, Brit.	1,093,620	1,142,922	.....	.....	.. ....	.....
Do. Dutch	436,072	416,936	.....	.....	.....	.....
Do. French	217,956	623,981	.....	.....	.....	.....
Bolivia	1,976,213	1,789,381	.....	3,592,350	.....	3,592,350
Peru	8,995,000	10,452,690	24,567,000	23,211,400	.....	47,778,400
Chile	6,287,526	5,484,686	6,839,500	1,960,400	.....	8,849,900
Arg. Conf'd'n	2,000,000	2,000,000	.....	.....	.....	.....
Buen's Ayr's	3,441,760	3,060,906	8,750,000	925,000	5,250,000	14,925,000
Paraguay	750,000	750,000	.....	.....	.....	.....
Uruguay	2,132,800	3,280,745	10,000,000	.....	.....	10,000,000
Patagonia	.....	.....	.....	.....	.....	.....
Falkland Is.	31,304	28,476	.....	.....	.....	.....
G'd total.	59,013,992	61,748,114	120,569,229	81,016,409	12,875,293	214,460,931

COMMERCIAL REGULATIONS.

TARIFF OF CANADA.

ASSENTED TO AUGUST 7, 1858.

TABLE OF DUTIES OF CUSTOMS INWARDS—GOODS PAYING SPECIFIC DUTIES.

Ale, beer, and porter, in casks.....per gallon	$0 08
" " in quart bottles.....per dozen bottles	0 25
" " in pint bottles.....	0 12½
And a duty of 15 per cent ad valorem on the bottles containing the same.	
Almonds, walnuts, and filberts.....per lb.	0 03
Corn brooms.....per dozen	0 50
Corn whisks.....	0 15
Cigars.....per lb.	0 80
Chicory, raw and kiln-dried.....	0 01
" roasted and ground.....	0 04
Coffee, green.....	0 01
" roasted.....	0 04
" ground.....	0 04
Cordials.....per gallon	1 00
Currants.....per lb.	0 03
Figs.....	0 03
Dried fruits.....	0 03
Ginger, pimento, and pepper, unground.....	0 04
" " " ground.....	0 06
Macaroni and vermicelli.....	0 03
Mustard.....	0 05
Molasses.....per gallon	0 04
Mace.....	0 25
Nutmegs.....per lb.	0 25
Nuts not specially named, except cocoa-nuts.....	0 01
Spirits and strong waters of all sorts, for every gallon of any strength not exceeding the strength of proof by Sykes' Hydrometer, and so in proportion for any greater strength or less quantity than a gallon, viz.:—	
Brandy.....per gallon	1 00
Gin.....	0 80
Rum.....	0 50
Whisky.....	0 18
Spirits and strong waters, including spirits of wine and alcohol, and not being brandy, gin, or whisky.....per gallon	0 70
Spices, unground, not otherwise named.....per lb.	0 07
" ground.....	0 10
Starch, and all preparations of starch.....	0 05
Soap, not otherwise specified.....per 100 lbs.	1 25
Sugar, refined, whether in loaves or lumps, candied, crushed, powdered, or granulated, or in any other form; white bastard sugar, or other sugar equal to refined in quality.....per 100 lbs.	2 50
Sugar, white clayed sugar or yellow bastard sugar, or any kind equal in quality to white clayed sugar, but not equal to refined sugar.....	1 75
Sugar, brown clayed sugar, Muscovado, or raw sugar of any kind, not equal in quality to the sugars last named.....	1 30
Sugar, raw, for refining purposes only, and not within 25 per cent of the value of the last named sugar.....	0 90
Tea, not exceeding in value 18 cents per pound.....per lb.	0 03
" exceeding in value 18 cents per pound.....	0 04
Tobacco, manufactured, not exceeding in value 20 cents per pound.....	0 05
" " exceeding 20 and not exceeding 40 cents per lb...	0 07½
" " over 40 cents per pound.....	0 10
Snuff.....	0 10
Vinegar.....per gallon	0 06

Wine, in wood, not exceeding in value $40 per pipe of 126 gallons.....	0 20
" " over $40 but not exceeding $60 per pipe of 126 gallons...	0 30
" " " $60 " " $100 " " ...	0 40
" " " $100 in value per pipe of 126 gallons	0 50
" in quart bottles, not exceeding $4 per dozen.....per dozen bottles	1 50
" in pint bottles, in proportion	0 75
" in quart bottles, exceeding $4 but not exceeding $8 per dozen.....	2 00
" in pint bottles, in proportion	1 00
" in quart bottles, exceeding $8 and not exceeding $12 per dozen....	2 50
" in pint bottles, in proportion	1 25
" in quart bottles, exceeding $12 per dozen.....	3 00
" in pint bottles, in proportion	1 50
And a duty of 15 per cent ad valorem on the bottles containing such wine.	
Printed, lithographed, or copper-plate bills, bill heads, checks, receipts, drafts, posters, cards, labels of every description, advertising pictures, or pictorial show bills or cards.....per hundred cards or sheets	1 00
Advertising pamphlets..... ....per hundred	1 00

TABLE OF FREE GOODS.

Acids of every description; agricultural societies—seeds of all kinds; farming utensils and implements of husbandry, when specially imported by, for the encouragement of agriculture; alum; anatomical preparations; anchors, over 6 cwt. in weight; animals of all kinds; antiquities, collections of; apparel, wearing, and other personal effects, and implements of husbandry, (not merchandise,) in actual use of persons coming to settle in the province and accompanying the owner; apparel, wearing, of British subjects dying abroad; argol; arms for army or navy and Indian nations, provided the duty otherwise payable thereon would be defrayed or borne by the treasury of the United Kingdom, or of this province; ashes, pot, pearl, and soda; bark, tanners'; bark, used solely in dyeing; barley, except pot and pearl; barley meal; beans; bean meal; bere and bigg; bere and bigg meal; berries, used solely in dyeing; bleaching powder; books, printed;—periodicals and pamphlets—not being British copyrights, nor blank, account, or copy books to be written or drawn upon; borax; bottles containing wine, spirituous or ferminating liquors of officers' mess; brandy imported for officers' mess; bran and shorts; brimstones; bristles; broom corn; buckwheat; buckwheat meal; bulbs and roots; bullion; burr stones, wrought and unwrought, but not bound up into mill-stones; butter; coin and bullion; cabinets of coins; cables, iron chain; cables, tarred hemp; cables, untarred hemp; cables, grass; carriages of travelers, and carriages employed in carrying merchandise, (hawkers and circus troops excepted;) casks, ships' water, in use; caoutchouc, or India rubber, and gutta percha, unmanufactured; cement, marine or hydraulic; charitable societies—donations of clothing for gratuitous distribution by; cheese; clothing for army or navy or Indian nations, or for gratuitous distribution by any charitable society; coal; cochineal; coke; commissariat stores; copperas; corkwood, or the bark of the corkwood tree; corn, Indian; cotton and flax waste; cotton wool; cream of tartar in crystals; diamonds and precious stones; drugs used solely in dyeing; dyestuffs, viz., bark, berries, drugs, nuts, vegetables, woods, and extract of logwood; earths, clays, and ochres, dry; eggs; felt hat bodies and hat felts; fire brick; firewood; fish; fish oil, in its crude or natural state; fish, products of, unmanufactured; flax, hemp, and tow, undressed; flour; fruits, green; fruits, dried, from the United States only, while the Reciprocity Treaty is in force; furs, skins, pelts, or tails, undressed, when imported directly from the United Kingdom or British North American Provinces, or from the United States; gems and medals; gravel; grains—barley and rye, beans and peas, bere and bigg, bran and shorts, buckwheat, Indian corn, oats, wheat, meal of above grains; grindstones, wrought and unwrought; gums and rosins, in a crude state; gypsum or plaster of Paris, ground or unground; grease and scraps; hams; hemp; hides; horns; household effects, personal, not merchandise, of subjects of Her Majesty domiciled in Canada but dying abroad; indigo; inventions and improvements in the arts, models of—provided that no article shall be deemed a model which can be fitted up for use;

junk and oakum; lard; lime, the produce of British North American Provinces only; machinery, models of—provided the same cannot be put to actual use; Manilla grass; manures of all kinds; maps and charts in sheets, not mounted nor on cloth; marble in blocks or slabs, unpolished; meats, fresh, smoked, and salt; menageries, horses, cattle, carriages, and harnesses of, subject to regulations by the governor in council; military clothing for Her Majesty's troops or militia; military stores and materials for military clothing imported for the use of the provincial militia, under such restrictions and regulations as may be passed by governor in council; mosses and sea grass for upholstery purposes; musical instruments for military bands; nitre of saltpeter; oakum; oil cake or linseed cake; oils, cocoa-nut, pine, and palm—in their natural state; old nets; ordnance stores; ores of all kinds of metals; osier or willow, for basket-makers' use; packages of all kinds in which goods are usually imported, except the following, viz., spirit, wine, oil, beer, cider, and other casks for the containing of liquids, baskets of every description, trunks, snuff jars, earthenware jars, glass jars, bags and barrels containing seeds and peas; pig iron, pig lead; pitch and tar; philosophical instruments and apparatus, books, globes, maps, and charts—provided the same be specially imported by and for the use of philosophical societies, universities, colleges, public schools, or institutes; plants, shrubs, and trees; provisions for army and navy, or Indian nations; rags; resin and rosin; rice; sailcloth; sal-soda; sal-ammonia; salt; seeds of all kinds; ships' blocks; binnacle lamps; canvas, duck; bunting; compasses; dead eyes; dead lights; deck plugs; shackles; sheaves; signal lamps; traveling trucks; ship's water-casks in use, expressly imported for ship-building purposes and by ship-builders or sail-makers; silk hat felts; soda ash; specimens of natural history, mineralogy, or botany; stone, unwrought; slate; statues, busts, and casts of marble, bronze, alabaster, or plaster of Paris; paintings and drawings as works of art; specimens of sculpture; cabinets of coins, medals, gems, and all collections of antiquities; sulphur and brimstone; tin and zinc, or spelter, in block or pig; tallow; teasels; timber and lumber of all kinds, round, hewed, sawed, unmanufactured in whole or in part; tobacco, unmanufactured; tools and implements of trade of persons arriving in Canada, when accompanied into the province by the actual settler, and brought in by such settler for his own use, and not for sale; treenails; turpentine; type metal, in blocks or pigs; vegetables—not elsewhere specified; vehicles of travelers, except those of hawkers and peddlers; water lime; wine, spirits, and fermented liquors of all kinds, imported for officers' mess, and the packages containing the same; wood for hoops, when not notched; woods of all kinds; wool; all importations for the use of Her Majesty's army and navy serving in Canada.

TABLE OF PROHIBITIONS.

The following articles are prohibited to be imported under a penalty of fifty pounds, together with the forfeiture of the parcel or package of goods in which the same may be found:—Books and drawings of an immoral or indecent character; coin, base or counterfeit.

GOODS PAYING FIVE PER CENT.

The following goods shall be charged with a duty of five per cent on the value thereof:—Bolting cloth; brass in bars, rods, and sheets; brass and copper wire, and wire cloth; chain, iron, and other cables, and not being horse chain, dog chain, jack chain, or other small chain not exceeding three-quarters of an inch; Canada plates, tinned plates, galvanized iron and sheet iron; copper in bars, rods, bolts, or sheets; cotton candle wick, yarn, and warp; emery; emery, glass, and sand paper; fishing nets and seines; fish hooks, lines, and fish twines; gold beaters' brim moulds and skins; silk-twist for hats, boots, and shoes; hat plush; hair, Angora, goat, Thibet, horse, or mohair, unmanufactured; iron, bar, rod, or hoop; iron, nail and spike rod; iron, hoop or tire, for driving wheels of locomotives, bent or welded; iron, boiler plates; iron, plate and angle, and other iron, shaped or unshaped, when forming part of an iron ship imported in pieces; iron, rivets for iron ships; iron, wire; lead, in sheets; sails, ready made; steel, wrought

or cast; tin, granulated or bar; tubes and piping, of copper, brass, or iron, when drawn; varnish, bright and black, for ship-builders, other than copal, carriage, shellac, mastic, or Japan; zinc or spelter, in sheet; locomotive and engine frames, cranks, crank axles, railway car and locomotive axles, piston rods, guide and slide bars, crank pins, connecting rods, steamboat and mill shafts, and cranks forged in the rough.

GOODS PAYING TWENTY PER CENT.

The following goods shall be chargeable with a duty of twenty per cent on the value thereof:—Anchovies, sardines, and all other fish preserved in oil; Argentine, Alabetta, or Albetta, and German silver manufactures; articles embroidered with gold, silver, or other metals; baskets, and all other articles made of grass, osier, palm leaf, straw, whalebone, or willow, not elsewhere specified; beads of every description; billiard tables and furnishings; bagatelle boards and furnishings; blacking; bracelets, braids, chains, curls, ringlets, or head-dresses of anything composed of hair or of which hair is a component part; brooms and brushes, not elsewhere specified; cameos or mosiacs, real or imitation, when set in gold, silver, or other metal; capers, pickles, olives, and sauces of all kinds not specified; candles and tapers of wax, sperm, belmont, stearine, adamantine, and composition; chandeliers, girondoles, gas fittings; carriages or parts of carriages not otherwise specified; cabinet ware or furniture; cashmere—see *manufactures;* cocks, taps, and coupling joints; carpets and hearth rugs, velvet, Brussels, tapestry, Turkish, Persian, and other kinds; confectionery not elsewhere specified; China ware of all kinds; cutlery, polished, of all sorts; coach and harness furniture of all kinds; composition tops for tables or for other articles of furniture; essences, balsams, cosmetics, extracts, pastes, perfumes, tinctures, and perfumery of all kinds; feathers and flowers, artificial or ornamental, or parts thereof, of whatever material composed; fans and fire screens; fireworks; glass, plate; glass, silvered; glassware, cut, ground, or colored; glass, stained, painted, or colored, glass, bottles and vials, not being wine or beer bottles; gold and silver leaf; gilt frames; guns, rifles, and fire-arms of all kinds; hats, caps, and bonnets; inks of all kinds, except printing ink; jewelry, real or imitation; japanned, planished tin, and britannia metal ware of all kinds; leather, sole, harness, dressed, kip, calf, and upper leather, and all imitations of leather; marble or imitation of marble mantel-pieces, or parts thereof; mattresses of hair, moss, or other material; millinery of all kinds; musical instruments of all kinds, including musical boxes and clocks; mowing, reaping, and threshing machines; manufactures of fur, of which fur is the principal part; manufactures of cashmere; manufactures of silk, satin, and velvet, and of all other fabrics of which silk forms the principal part; manufactures of bone, shell, horn, pearl, ivory, or vegetable ivory; manufactures of gold, silver, or electroplate; manufactures of brass or copper; manufactures of leather or imitation of leather, or of which leather or imitation of leather is the principal part, not otherwise specified; manufactures of marble, or marble more advanced in manufacture than slabs or blocks in the rough; manufacture of *papier mache;* manufactures of caoutchouc, or India rubber, or of gutta percha, or of which any of these articles forms the principal part; manufactures of straw; patent medicines and medical preparations not elsewhere specified; oil cloths of whatever material composed; salad oils, table oils, and linseed oils; opium; ornaments of bronze, alabaster, terracotta, or composition; plated and gilded wares of all kinds; playing cards; preserved vegetables, meats, poultry, fish, and game; railing or fencing of iron; riddles and sieves; scales and weights; shawls, Thibet, wool, or filled; silks, satins, or velvets, and all fabrics of which silk forms the principal part; spades, shovels, axes, hoes, rakes, forks, and edge-tools, scythes and snaiths, bolts, nuts, and washers; spikes, nails, tacks, brads, and sprigs; silk, woolen, worsted, and cotton embroideries, and tambour-work; silk twist and twist composed of silk and mohair; silver and gold cloth, thread, and other articles embroidered with gold or for embroidering; skins, sheep, calf, goat, and chamois, dressed; soap, perfumed or fancy; stoves and all other iron castings; toys; thread lace and insertions; writing desks, fancy and ornamental cases and boxes of whatsoever material; woolen goods.

GOODS PAYING TWENTY-FIVE PER CENT.

The following goods shall be chargeable with a duty of twenty-five per cent on the value thereof:—Manufactures of leather, viz., manufacture of boots and shoes; manufacture of harness and saddlery; clothing or wearing apparel, made by hand or sewing-machine.

GOODS PAYING FIFTEEN PER CENT.

All articles not hereinbefore enumerated as charged with a specific or ad valorem duty, and not exempted from the payment of duty, shall be chargeable with a duty of fifteen per cent as the duty thereof.

CRUDE NAPTHA, OR COAL OIL.

TREASURY DEPARTMENT, June 21, 1858.

SIR:—I acknowledge the receipt of your report, under date of the 3d instant, on the appeal of Messrs. E. T. Jones & Co. from your assessment of duties on an article imported by them and invoiced as "crude naptha," at the rate of 24 per cent, under the classification in schedule C of the tariff of 1857, of "oils, volatile, essential, or expressed, not otherwise provided for." The article in question is understood to be obtained by distillation from a bituminous coal found in the British Province of New Brunswick, used mainly for illuminating purposes, and belongs, it would appear, to that class of products known in commerce as "coal oils." The importers, however, allege that it differs in some of its properties from "coal oil," though applicable to the same general purposes, and claim entry of it as an unenumerated article at a duty of 15 per cent under the first section of the tariff act of 1857. The department concurs with you in opinion as to the character of the article—that it is to be regarded as a coal oil—but not as to the schedule to which it should be referred, and the rate of duty to be exacted. It is not specially designated in any of the provisions respecting "oils" in the tariff of 1857. Being the product of distillation, it cannot be regarded as an "expressed" oil, nor as a "volatile or essential oil," according to the strict technical meaning of those terms, or as they are used and understood in the trade. It does not, therefore, in the opinion of this department, fall within the classification to which it was assigned on the entry, but should be regarded as unenumerated in the tariff of 1857, and assimilated by force of the 20th section of the tariff act of 1842, in view of the uses to which it is applied, to the illuminating and lubricating oils in schedule E, to wit, "oils, neatsfoot and other animal oil; spermaceti, whale, and other fish oil, the produce of foreign fisheries," and subjected to a duty of 15 per cent. Very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

PECUL OF MANILLA.

The Department acquiesced in the decision of the Circuit Court of the United States for the Eastern Circuit in the case of Samuel Austin *vs.* Charles H. Peaslee, late collector at Boston, rendered at the September term, 1857, on the question of law involved in the same, to wit, that duties are not legally chargeable on more than the net weight of the Manilla hemp entered at the custom-house, and this principle, so established by the court, will govern in cases of similar character now pending, or which may hereafter arise at the several ports. As it regards the weight of the pecul of Manilla (a question of fact, established by the verdict at 140 pounds avoirdupois,) the Department is not prepared to yield a like acquiescence. The judge, in his opinion, rates it at within a few ounces of 140 pounds; and the best authority accessible to the Department (Alexander's Universal Dictionary of Weights and Measures) rates it at 139.449615 pounds, at which rate it must be taken at the custom-house, unless it be hereafter satisfactorily shown to the Department that a different rate is the proper one.

CHINESE TREATY.

The *Friend of China* has the following synopsis of the provisions of the new treaty :—

Article 1. Provides for general peace, and a stipulation for good offices of the United States in case of difficulty with other powers.

Art. 2. Provides for the deposit and record of the treaty of Pekin and Washington.

Art. 3. The official publication of the treaty at Pekin and in the provinces by imperial authority.

Art. 4. Direct correspondence (with the obligation to acknowledge and answer) of the Minister of the United States with the Privy Council or Prime Minister at Pekin.

Art. 5. Right of annual visit and sojourn at his own leasure, as to time, of the United States Minister at Pekin, journey to be either by the Peiho, or overland from Shanghae, and to be provided for by the Chinese government, as well as with an official residence at the capital. His suite not to consist of more than twenty, exclusive of Chinese attendants. His official intercourse to be with the Privy Council, or one of its members deputed for that purpose.

Art. 6. Permanent residence at Pekin if the same privilege is conceded to other powers.

Art. 7. Equality of rank in official correspondence.

Art. 8. Interviews of ministers with governor-general, governors, &c., always to be at official residences; interviews never to be denied.

Art. 9. Interviews on terms of equality of naval commanders with officials of highest rank. Suppression of piracy.

Art. 13. Right to lease property without any intervention of officials. Designation of open ports, new ones being Swatow and Taiwan in Formosa, and any other granted to English, French, or Russians. Clandestine and contraband trade prohibited. Opium to be prohibited or allowed according to Chinese laws.

Art. 14. The United States never to pay higher duties than the "most favored nation."

Art. 15. Tonnage duties not higher than imposed on the most favored nation; double tonnage dues abolished. Prospective application of tonnage dues to beacons, lighthouses, &c.

Art. 16. Regulations of pilots.

Art. 20. Time of paying duties; to be paid in sycee or foreign money; consuls not to give up papers before duties are paid.

Art. 24. Immunity of national flag and obligation of neutrality.

Art. 25. Apprehension of mutineers and deserters, and punishment of criminals.

Art. 26. Exclusive jurisdiction of United States authorities over rights and intercourse of its citizens.

Art. 27. Mutual appeals to public officers with complaints.

Art. 28. Recognition and absolute toleration of Christianity, and protection of Chinese converts.

Art. 29. Comprehensive provision that all rights, privileges, and powers granted to any nation, its merchants, or subjects, whether political, mercantile, or otherwise, and not conferred by this treaty on the United States, shall at once enure to the benefit of the United States, its public functionaries, merchants, or citizens.

Treaty to be ratified within a year by the United States, and by the emperor forthwith.

The claims for pecuniary indemnity, either for English, American, or French losses neither admitted nor denied, but referred to Canton.

Permanent legation of the United States Minister, after settlement of pending question at Canton, understood to be hereafter at Shanghae.

NAUTICAL INTELLIGENCE.

PORT OF LIVERPOOL, ENGLAND.

The Marine Surveyor of the port of Liverpool, England, has given notice, by order of the Mersey Docks and Harbor Board, that the following changes in the lighting and buoying of the approaches to the port will be carried into effect on the 18th August next, and following days, (weather permitting.) All bearings by compass.

RELATIVE CHANGE.	BEARINGS, ETC., FROM NEW POSITION.
Formby light-ship will be moved 350 fathoms S. E. by E. ¼ E. from her present position, into 25 feet at low water.	Crosby light-ship, S. E. ¼ S., 2½ miles; N. W. mark, E. by N. ¼ N., 3¾ miles; buoy Q. Fy., (bell beacon,) N. W. by W. ¼ W., 2¾ miles; V. 3 red, W. S. W., ¾ mile nearly; C. 1 red, S. by E. ¼ E., ¼ mile.
Q. Fy. to be moved 350 fathoms N. W. by W. ¼ W., into 37 feet at low water, to be a black pillar buoy, bearing a bell, with perch and ball on its summit, marked Q. Fy., with the course up the channel S. E. by E. ¼ E.	Formby light-ship and Crosby lighthouse in one, S. E. by E. ¼ E., distant from Formby light-ship 2¾ miles; N. W. light-ship, S. W., 4¾ miles.
Q. 1 black and white chequered to be moved 85 fathoms N. E., into 12 feet at low water.	Formby light-ship, S. E. ¼ E., 1⅝ mile; Q. Fy., (bell beacon,) W. by N. ¼ N., 1 mile; Q. 1 red and white chequered, S. S. W. ¼ W., ¼ mile nearly.
Q. 1 red and white chequered to be moved 75 fathoms W. by S., into 12 feet at low water.	Formby light-ship, E. by S. ¼ S., 1⅝ mile; Q. Fy., (bell beacon,) N. W. ¼ W., 1 mile.
C. 1 red to be moved 250 fathoms S. S. E. ¼ E., into 14 feet at low water.	Formby light-ship, N. by W. ¼ W., ⅝ mile; S. V. 1 red and white striped can buoy, W. by N., ⅝ mile; Crosby lighthouse, E. by S. ¼ S., 3¾ miles.
C. 2 black to be moved 150 fathoms N. ¼ E., into 23 feet at low water.	Crosby light-ship, S. E. by S., 1⅝ mile; C. 1 red, West, ⅝ mile; Formby light-ship, N. W. ¼ W., 1¼ mile.
C. 3 black to be moved 90 fathoms N. E. ¼ N., into 29 feet at low water.	Crosby light-ship, S. E. by S. ¼ S., ⅝ mile; C. 2 red, W. ¼ S., ¼ mile nearly; C. 2 black, N. W. ¼ N., ⅝ mile nearly.
F. 2 black to be moved 75 fathoms East, into 7 feet at low water.	Crosby light-house, S. E. ¼ S., 2¼ mile; N. W. mark, N. E. ¼ N., 1¼ mile; F. 3 red, S. W. ¼ W., ⅝ mile.

The old bell beacon to be superseded in its present situation by a black nun perch buoy, market V. Fy. The buoy R. 1, black can, to be superseded by the old bell beacon, to be marked "R. 1, Spencer's Spit."

By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 11, 1858.

FIXED LIGHT AT THE GRAU D'AIGUES MORTES—MEDITERRANEAN, FRANCE.

The Imperial Ministry for Public Works in France has given notice, that on and after the 15th day of July, 1858, a harbor light will be exhibited from the northwest mole head of the Grau d'Aigues Mortes, in the Department of the Bouches du Rhone, Gulf of Lion. The light will be a fixed red light, visible 3 miles, and it is placed at 295 yards to the southwest of the present lighthouse, or Phare d'Aigues Mortes. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

FIXED LIGHT ON BILLINGSGATE ISLAND—CAPE COD, MASSACHUSETTS.

NORTH SIDE OF ENTRANCE OF WELLFLEET HARBOR.

Notice is hereby given that Billingsgate Island lighthouse, situated on the north side of the entrance of Wellfleet Harbor, Massachusetts, has been rebuilt, and will be lighted for the first time at sunset on Wednesday, the first day of September next, and will be kept burning during that night, and every night thereafter, from sunset to sunrise. The lighthouse is situated on the east side of the island, and the ranges are the same as those published on the Coast Survey chart of 1853, of Wellfleet Harbor, with the old lighthouse. The tower is built of brick, square, and is of the natural color of the brick. The lantern is painted black. The dwelling-house, which is joined to the tower, is built of brick, and is brick color. The tower is 30 feet high, and the focal plane is 40 feet above the level of the sea. The illuminating apparatus is a catadioptric lens of the 4th order of the system of Fresnel, showing a fixed light of the natural color, which should be seen in ordinary states of the atmosphere 12 nautical miles. The position of the lighthouse, as given by the Coast Survey, is latitude 41° 52′ 22″ N., longitude 70° 03′ 55″ W. The stake light now shown on the island will be discontinued from 1st September next. By order of the Lighthouse Board,

W. B. FRANKLIN, Engineer, Secretary.

WASHINGTON, August 11, 1858.

LIGHTS AT ST. HELIER—ENGLISH CHANNEL, JERSEY.

The harbormaster at St. Helier, Jersey, has given notice that the following lights are exhibited all night for the guidance of vessels bound into the barbor of that place:—

A fixed white light from the lighthouse on Victoria, or New South Pier Head, placed at an elevation of 31 feet above the level of the sea at high water, and should be visible in ordinary weather from a distance of about 6 miles.

A fixed red light from a lantern post on Albert Pier Head, elevated 15 feet above high water, and visible in ordinary weather from a distance of about 3 miles.

A fixed blue light on the parapet of the Old North Pier, at 477 yards to the N. E. by E. of the Albert Pier light, and it should be seen about 3 miles distant in ordinary weather.

A fixed red light from a lantern post on the Upper Pier Road, 680 yards to the E. N. E. of the Victoria Pier light, at an elevation of 46 feet above high water, and also visible 3 miles in ordinary weather.

Vessels approaching the harbor, by keeping the Albert Pier red and Old North Pier blue lights in line, will pass a little to the eastward of the Grune St. Michel, and to the eastward of, but rather too close to, Les Huitriers, or Oyster Rocks. The best approach from the westward will be the passage between the Oyster Rocks and the Bues, with the Victoria or New South Pier light in line with the Upper Pier Road red light, although this leads too close to the Grune au Dart and the Grande Vaudin. The bearings are magnectic. Variation 21¼° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

KOKSCHEHEREN LIGHTHOUSE, RUSSIA.

The Hydrographical Department of the Ministry of Marine of His Imperial Majesty of Russia, has given notice, that to render the lighthouse tower of Kokscheheren a better day-mark, the base of that tower, constructed of stone, would, on and after the 6th of July ultimo, be painted red. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 25, 1858.

LIGHT AT PORT ZEBU, PHILIPPINE ISLANDS.

The Spanish Government has given notice, that a harbor light has been established at Point Dapdap (?) at the northeast entrance of Port Zebu, on the eastern coast of Zebu, one of the Filipinas or Philippine Islands, in the China Sea. The light is a fixed white light, placed at an elevation of 50 English feet above the level of the sea, and should be visible in clear weather at a distance of 4 miles. Its position is in about latitude 10° 21½′ N., longitude 124° 3′ east of Greenwich by the Admiralty Charts, or in longitude 123° 49′ east, according to the Spanish official notice.

LIGHT AT PORT ROMBLON. Also, that a fixed white light is exhibited from a lighthouse erected on Point Sabang, at the northern extremity of the entrance to Port Romblon, on the northeast coast of Romblon Island. Filipinas. The light-tower is of stone, and stands in about latitude 12° 36¾′ N., longitude 122° 18′ east of Greenwich. The extremities of the reefs within the port of Romblon are marked by four beacons, from which lantern lights are shown by night.

TRINCOMALEE—INDIAN OCEAN—CAUTION.—The usual notice of the fixed light at the flag-staff on the north side of the entrance of Trincomalee Harbor, on the northeast coast of Ceylon, says it is visible from N. 15° W. round easterly to S. 55° E: These bearings, if followed, would lead into danger. The mariner, therefore, is cautioned, when approaching from the northward, not to steer for the lights on a bearing to the eastward of S. ¼ E., and when closing from the southward not to bring the lights to the northward of N. W. by W. ½ W. magnetic. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

FIXED LIGHT OFF LOBOS ISLAND—SOUTH ATLANTIC, RIO DE LA PLATA.

The Captain of the Port at Monte Video has given notice, that after the 5th of April, 1858, a light would be exhibited from a lighthouse on Lobos Island, off Maldonado, on the north side of the entrance to the River Plata. The light is a fixed white and red light, (?) placed at an elevation of 84 English feet above the level of the sea, and should be visible in clear weather from a distance of about 14 miles. The lighthouse stands on the northwestern extremity of the island, in about latitude 35° 1½′ S., longitude 54° 52½′ west of Greenwich.

LIGHT-VESSEL OFF THE ENGLISH BANK.—Also, that a light-vessel has been moored off the north spit of the English Bank, in the entrance of the River Plata. The light is a fixed white light, visible in clear weather from a distance of 11 miles. The vessel lies in 7 fathoms water, with the Monte Video N. W. by W. ½ W., Flores Island N. by W. ½ W., and the Sugar Loaf N. E. ¼ E.; her position being in about latitude 35° 6′ S., longitude 55° 54′ west of Greenwich. All bearings are magnetic. Variation 9½° east in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

REVOLVING LIGHT ON CAPE BORDA—AUSTRALIA, SOUTH COAST.

The Master and Wardens of the Trinity House of Adelaide have given notice, that on or about the 1st of May, 1858, a light would be exhibited from the lighthouse recently erected on Cape Borda, the northwest point of Kangaroo Island, off the entrance to St. Vincent Gulf, South Australia. The light is a revolving light, showing alternately red and white, with intervals of half a minute between each exhibition. It is placed at an elevation of about 510 feet above the sea at high water, and should be visible in clear weather from the deck of a vessel at a distance of 30 miles. The lighthouse stands in about latitude 35° 45½′ S.; and longitude 136° 34½′ east of Greenwich. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

LIGHTS AT THE DELTA OF THE MISISSIPPI RIVER, LOUISIANA.

The light at the Northeast Pass of the Mississippi River, Louisiana, having been discontinued in conformity to law, the lights at the Delta of the Mississippi will be known and distinguished as follows, viz. :—

SOUTHWEST PASS LIGHT. The Southwest Pass light is a fixed light, of the natural color, third order catadioptric apparatus of the system of Fresnel, illuminating 270° of the horizon, from northeast around by south to northwest, exhibited from a white tower, 70 feet above the mean level of the sea, situated on the west side of, and near the entrance to, the pass.

SOUTH PASS LIGHT. The South Pass light is a revolving light, of the natural color, third order catadioptric apparatus of the system of Fresnel, showing a brilliant flash once in every one minute and a half, exhibited from a slate-colored wooden tower, rising from the center of the keeper's dwelling, 60 feet above the mean level of the sea, situated on the S. W. side of Gordon's Island, and near the entrance of the South Pass.

PASS A LOUTRE. Pass a Loutre light, placed on Middle Ground Island, north side of the entrance to the Pass a Loutre, will be changed on and after the 1st of January, 1859, to a fixed light, of the natural color, third order catadioptric apparatus of the system of Fresnel, illuminating 270° of the horizon, exhibited from a tower, painted black. at an elevation of 77 feet above the mean level of the sea. The present distinction of the light at Pass a Loutre (fixed light varied by flashes) will be continued until the 1st January, 1859.

NORTHEAST PASS DAY BEACON. The lighthouse tower on Frank's Island at the Northeast Pass, 70 feet high, painted white, will be left standing to serve as a day-mark to guide mariners. By order of the Lighthouse Board,

R. SEMMES, Inspector, Eighth Lighthouse District.

MOBILE, ALABAMA, August 23, 1858.

FIXED LIGHT, VARIED BY FLASHES, AT SANDY POINT, CHESAPEAKE BAY.

A fixed light, varied by flashes, of the natural color, will be exhibited for the first time on the night of October 1st, 1858. and on every night thereafter, from sunset to sunrise, from the lighthouse recently erected on Sandy Point, west side of Chesapeake Bay, between Greenbury Point lighthouse (entrance to Annapolis Harbor) and the mouth of the Magothy River. The light will be of the 4th order catadioptric of the system of Fresnel, and will appear to the mariner fixed, within the limit of range of the fixed part, varied by a brilliant flash once in every one-and-a-half minute. Without or beyond the limit of visibility of the fixed part, the flashes only will be seen. The structure is a brick house, with a lantern on top, in the center, painted red. The height of the light from the base of the house is 35 feet, and the height above the mean level of the bay is 50 feet. The light should be visible to an observer, on the deck of a coasting vessel. at the distance of about 12 miles in good weather. By order of the Lighthouse Board,

L. SITGREAVES, Capt. Corps Top. Engineers.

BALTIMORE, August 11, 1858.

REVOLVING LIGHT ON CAVOLI ISLET—MEDITERRANEAN, SARDINIA.

Official information has been received at this office that the Sardinian Government has given notice, that on and after the 18th of July, 1858, a light would be exhibited from the lighthouse recently erected on Cavoli Islet, off Cape Carbonara, the eastern point of the Gulf of Cagliari, south coast of Sardinia. The light will be a revolving light, eclipsed every half minute, placed at an elevation of 242 English feet above the level of the sea, and should be visible in clear weather from the deck of a vessel at a distance of about 25 miles. The illuminating apparatus is dioptric, or by lenses of the first order of Fresnel. The lighthouse stands in latitude 39° 5′ 18″ N., longitude 9° 32′ 35″ east of Greenwich. Its form, height, and color are not stated. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

JOURNAL OF INSURANCE.

LIFE ASSURANCE.

Life assurance has now become a fixed fact; a resource which common prudence and foresight impel every one, with a due sense of his responsibility to those dependent on him for their subsistence, to avail himself of, to secure them from want in the event of his being cut off by death before he has had time or opportunity to make adequate provision for them. The exertions of philanthropical and statistical writers have not been unavailing in directing public attention to this subject, and the effects have become apparent in the large increase of policies of assurance opened and continued to be subscribed to. But precisely in the proportion that the practice of life assurance becomes general, is it necessary to guard against frauds or extortion on the part of those with whom it is effected. It is a hard case, indeed, after a man has applied the amount of his savings for years in an annual contribution to a company, that they, for whom the sacrifice is made, should be deprived of the legitimate fruits of it. Such things, however, have occurred; the eagerness of competition between a large number of companies has led to premiums below the rate which the statistics of longevity show to be necessary to make such companies profitable. When losses occur, as they must in the order of things do, they are left without the means of fulfilling their obligations. It is thus the interest of the assured that premiums lower than those which the chances of tenure of life justify, should not be paid, since their being so leads to bankruptcy of the company.

On the other hand, it is manifestly in an equal degree the interest of the assured that he should not be overcharged. This of late years has been effectually guarded against by making the assured the partner with the assurer, in the profit on the rate charged. The mutual principle is in that respect a good one, but it is attended with this drawback, that it makes the assured participate in the losses the company are liable to, through mismanagement or miscalculation of chances by the governing body. This objection, too, has been obviated by making the assured participants at stated intervals in the profits, without involving him in the risk. This principle is now generally admitted in the best-regulated companies, and has caused them to obtain the decided preference over other companies that have not adopted it.

LIFE INSURANCE COMPANIES IN THE STATE OF NEW YORK.

SYNOPSIS OF THE ANNUAL ACCOUNTS OF LIFE INSURANCE COMPANIES DOING BUSINESS IN THE STATE OF NEW YORK FOR THE YEAR 1857.

Companies.	When organized.	Policies issued. — No.	Policies issued. — Amount.	At risk, end of year. — No. of policies.	At risk, end of year. — Amount.
Mutual Life, of New York...	1843	1,863	$5,852,087	10,390	$30,481,302
N. England Mutual, Boston..	1843	532	1,719,900	2,831	8,884,190
New York Life.....	1845	711	2,675,102	3,836	12,778,938
Mutual Benefit, Newark, N. J.	1845	522	1,969,650	5,321	17,423,177
Connecticut Mutual, Hartford	1846	531	1,310,870	3,529	20.197,164
American Mutual, New Haven	1847	582	980,750	3,100	4,050,000
Manhattan, New York.....	1850	750	2,345,000	2,478	7,862.928
United States, New York ...	1850	1,004	2,537,900	2,440	4,964,824
Knickerbocker, New York...	1853	168	365,448	500	1,219,811
Mass. Mutual, Springfield ...	....	337	722,150	1,083	2,161,680

	Receipts.			Disbursements.	
	Premiums and interest in cash.	Premium notes and other receipts not cash.	Total income.	Paid claims by death.	Surrendered policies, &c.
Mutual Life, of New York ..	$1,166,733	.....	$1,166,733	$317,043	$89,507
N. England Mutual, Boston..	201,154	$98,192	299,346	94,350	.....
New York Life.....	358,572	115,619	474,191	153,788	†46,448
Mutual Benefit, Newark, N. J.	634,092	60,926	695,018	198,115	‡179,788
Connecticut Mutual, Hartford	399,580	237,875	637,455	217,225	186,282
American Mutual, New Haven	73,347	7,045	80,392	47,975	243
Manhattan, New York.....	202,553	114,553	317,106	57,863	§26,859
United States, New York ...	184,900	.....	184,900	58,794	‖17,169
Knickerbocker, New York...	49,815	4,009	53,824	3,000	6,390
Mass. Mutual, Springfield ...	43,771	12,864	56,635	5,500	¶7,000

	Disbursements.		Assets.		
	Expenses, including commissions.	Total disbursements.	Cash.	Not cash.	Total.
Mutual Life, of New York ..	$110,085	$466,635	*4,685,909	.....	*4,685,909
N. England Mutual, Boston..	24,557	118,907	960,747	$199,406	1,160,153
New York Life.....	62,534	262,770	864,820	538,146	1,402,966
Mutual Benefit, Newark, N. J.	58,301	436,204	1,730,648	1,012,678	2,743,326
Connecticut Mutual, Hartford	44,978	448,435	1,592,063	1,053,776	2,645,839
American Mutual, New Haven	21,554	69,772	168,781	24,603	193,384
Manhattan, New York.....	41,855	126,077	**287,535	318,974	**606,509
United States, New York ...	29,778	105,741	**341,611	††78,873	**420,484
Knickerbocker, New York...	14,780	24,170	**155,597	32,713	**188,310
Mass. Mutual, Springfield ...	10,502	23,002	**146,249	47,572	**193,821

	Per cent of expenses on income.	Per cent of claims on income.	Per cent cash assets on amount at risk.	Per cent other assets on amount at risk.	Per cent total assets on amount at risk.
Mutual Life, of New York ..	09.5	27.2	15.4	....	15.4
N. England Mutual, Boston..	08.2	31.5	10.8	02.2	13.0
New York Life.....	13.2	32.4	06.8	04.2	11.0
Mutual Benefit, Newark, N. J.	08.4	28.5	09.9	05.8	15.7
Connecticut Mutual, Hartford	07.1	34.1	07.9	05.2	13.1
American Mutual, New Haven	26.8	59.7	04.2	00.6	04.8
Manhattan, New York.....	13.0	18.2	03.7	04.0	07.7
United States, New York...	16.1	31.8	06.9	01.6	08.5
Knickerbocker, New York ..	27.5	05.6	12.8	02.6	15.4
Mass. Mutual, Springfield....	18.5	09.7	06.8	02.1	08.9

Of the last five columns, the first two represent respectively the amount paid for expenses of management and for claims by death for each $100 of income, while the last three columns represent the assets, (cash, credit, and total, respectively,) for each $100 of amount at risk.

MASSACHUSETTS INSURANCE.

The Commissioners of Massachusetts report :—

The amounts of these losses paid for the last two years, (the only years in which they can be ascertained from official sources,) are for the years ending October 31st, 1856, and October 31st, 1857, as follows :—

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* Includes "deferred premium account and interest accrued," as returned by the other companies.
† Including $22,332 interest on dividends paid during the year.
‡ Including dividends paid.
§ Including $16,000 interest on capital stock.
‖ Including interest on capital stock.
¶ Interest on capital stock.
** Including $100,000 capital stock.
†† Including $37,919 of "premium notes on which policies are issued and in force."

For the year ending October 31, 1856—

Fire losses	$1,401,964 58
Marine losses	4,209,864 08
Total	$5,611,828 66

For the year ending October 31, 1857—

Fire losses	$978,881 70
Marine losses	5,202,628 89
Total	$6,181,510 59

The Commissioners again report stock companies as being in a prosperous condition, the Hope Insurance Company, of Boston, which has been compelled, by large marine losses, to suspend further operations for the present, being the only exception. No change in laws relating to, or in the management of, this class of corporations is asked for. The suggestion made in the last annual report, that a stock company, with a large capital, organized for the express purpose of insuring "extra hazardous" property, would be a great convenience, is renewed. There is a large and constantly increasing class of property, considered extra hazardous, such as steam saw and planing mills, carpenters' and cabinet-makers' shops, and the like, which it is exceedingly difficult now to insure, except in second-class mutual or in foreign companies; the owners of this class of property are usually willing to pay fair and even liberal rates for insurance, but the liability to enormous assessments in such mutual companies as will write for them, and the uncertainty of recovery in case of loss from foreign companies, operates in many cases as an effectual bar to any insurance.

There are fourteen mutual marine and mutual fire and marine insurance companies reported this year. The amounts at risk in these companies, November 1st, 1857, were—

Fire risks	$9,600,614	
Marine risks	53,452,163	
		$63,052,777

Losses during the year—

Fire losses	$7,335 32
Marine losses	2,051,815 47
Total	$2,059,150 79

The Commissioners report mutual fire insurance companies as changing for the better. A larger cash premium is now required than formerly, a greater degree of care is exercised in issuing policies, and there is less litigation in cases of loss. Attention is called to the provision of the statute that every member of a mutual company shall, at the expiration of his policy, have a share in the profits of the company during the time his policy was in force, in proportion to the sums paid by him on said policy.

Under this provision, the question arises—has any company a right to lay aside for the accumulation of a fund any part of its earnings? It is very clear that the fund, if collected, must be collected or reserved from the profits of the company, and if so, it is clearly an infraction of the provision of the law which entitles each individual member to his proportion of such profits. Yet the returns show that a large proportion of the mutual companies in the State have already accumulated funds thus reserved; and it is doubtless true that this fact of itself gives popularity and strength to such companies. But another question presents itself. The charters of nearly all mutual companies expire in twenty or twenty-eight years after date of issue. In case of accumulation of a fund, to whom does that fund belong at the expiration of the charter? The experience of the last year has still more strongly confirmed the opinion expressed in both the first and second annual reports of the Board, that a passage of a law prescribing a uniform policy for all mutual fire insurance companies, would be a measure o

great, if not indeed of universal, utility. There can be no doubt that a very large proportion of the vexatious lawsuits, which cause so much difficulty in these companies, arise from the ambiguous and complex by-laws which are by the companies made a part of their policies. The whole contract between the insurers and the insured should be contained in the face of the policy, and should be clearly and unequivocally set forth, and easily understood.

POSTAL DEPARTMENT.

UNITED STATES POST-OFFICE APPROPRIATION.

The appropriations for the service of the year 1859 have been as follows:—

APPROPRIATION FOR MAIL BY OCEAN STEAMERS FOR 1859.

From New York to Liverpool	$346,500	For mails on Puget Sound ..	$22,500
From New York to New Orleans, Havana, &c.....	261,000	From New York to Havre ..	230,000
From Panama to California, and back.....	328,350	From Charleston to Havana..	50,000
For mails between California and Washington.....	122,500	Across the Isthmus.....	100,000
		Total.....	$1,460,750

APPROPRIATION FOR THE POST-OFFICE.

For transportation of mails..	$10,140,520	Blanks and paper.....	$125,000
Compensation of postmasters	2,325,000	Locks and keys.....	15,000
Ship and way letters.....	20,000	Special agents	70,000
Wrapping paper.....	55,000	Clerks	850,000
Post-office furniture	5,000	Postage stamps.....	100,000
Advertising.....	85,000	Miscellaneous.....	180,000
Mail bags.....	65,000		
Total.....			$14,035,520

This $14,035,520 is to be paid out of the receipts of the Post-office. If those receipts do not suffice, then $3,500,000 is to be paid out of the general treasury. This, with the amount paid for ocean steam mail above, makes $4,960,750. In addition to this $700,000 is appropriated for the mail service of the two Houses of Congress, making $5,660,750 expenses of a system which it is admitted should be self-supporting.

SANDWICH ISLANDS POST-OFFICE.

From the report of the postmaster it appears that, although the number of foreign letters which have passed through the Post-office, during the past two years, is smaller than those passed in the year 1855, still the amount of postage collected during the two years exceeds the amount collected in 1855. This is accounted for by the sea postage having been collected in addition to the Hawaiian postage, and also by the increase in the number of pamphlets and newspapers received.

The minister in his report says:—"I beg to call your attention to the postmaster's suggestion, that a small rate of postage be imposed on inter-island letters, and that he be authorized by the law to issue inter-island postage stamps, to carry the plan into effect. Although it is now a fixed principle of every civilized community to reduce its postage to the lowest possible figure, in order to facilitate the inter-communication of thought and the transactions of business,

yet I know of no country but our own where postage of some kind is not levied to assist at least in defraying the expenses of that department.

"In the new code a clause has been introduced prescribing a definite time and mode of disposing of dead letters, which I hope you will approve of."

ENGLISH DEAD-LETTER OFFICE.

The following report from the English Dead-letter Office is interesting:—

The total number of letters sent to the Returned Letter Office in 1857, (as dead letters,) amounted in England to 2,024,057; in Scotland to 183,132; and in Ireland to 199,651. Of these there were returned to the writers 1,460,792 in England, 145,512 in Scotland, and 123,904 in Ireland. In England 102,234 letters were re-issued to corrected addresses, 196,779 were returned unopened to foreign countries and the colonies, and 264,251 were destroyed; 12,239 letters were destroyed in Scotland, 66,351 in Ireland. The number of dead letters containing money and valuables, was (for the United Kingdom) 30,669, and the amount of property was £419.939. Almost all this property was, however, ultimately returned to the writers of the letters; 3,320 letters in England, to the amount of £16,202, with the exception of 141 refused letters, containing duplicate bills of exchange for £7,936 3s. 1d., which have been destroyed as of no value, are still in the Returned Letter Branch awaiting application, (there being no means of discovering the writers,) where they will remain for two clear years, when the letters will be destroyed, with the bills and other securities, which may have become valueless through lapse of time.

The jewelry and other articles of permanent value will be sold by auction, and the sum realized, as well as the cash and bank notes found in such letters, will be carried to the account of the Life Insurance Fund. There are 793 letters, containing cash and bank notes to the value of £250 4s. 6d., but many of them will probably yet be applied for and delivered. The sum of £527 6s. 5d. was carried to the account of the Life Insurance Fund during the year, as the proceeds of lost property; but this sum does not represent the amount properly appertaining to the year, for, owing to an alteration in the arrangements for the disposal of returned letters, the proceeds of two years' letters were carried to account in 1857.

EXTENSION OF THE ATLANTIC TELEGRAPH CABLE.

It is stated that the French Government have granted to the Atlantic Telegraph Company the exclusive right for fifty years to land telegraph cables on the Islands of Miquelon, which lie between Nova Scotia and Newfoundland, in a direction about thirty miles southwest from the latter, and about two hundred miles distant from Sydney, N. S. Having secured the right, the company propose to run a cable from Placentia Bay, N. F., to St. Pierre, the chief fish depot of the islands, and thence to a point near Sydney, Cape Breton, N. S. By this means the two French islands will be thrown into telegraphic communication with Europe, while the company will get rid of the necessity of keeping in repair some four or five hundred miles of land line running across Newfoundland and Cape Breton, through regions where there are no inhabitants, excepting a few scattered Indians, and no roads other than those which have been constructed by the telegraph company at its own expense. In according this liberal grant, the French Government doubtless had in view the advantages it must confer upon its immense fishing interest, which centers at St. Pierre, and which will thus be brought into daily and almost instantaneous communication with France.

CHILIAN POST-OFFICE.

The number of letters posted in 1857 in all the Chili Post-offices amounted to 613,772; that of certified letters to 410; that of fined letters to 126,297; that of samples to 6,509; that of newspapers 168,060; and newspapers fined, 2,445; total, 1,314 908, and their value $79,565. The number of letters posted for foreign countries in 1857 was 792,601.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

ENGLISH RAILWAYS.

The editor of the *Railroad Journal* writes from London as follows:—

The distinguishing feature of English railways, compared with American, is the more costly character of their structures, and the finish given to these, as well as to the roads and everything pertaining to them. Give an English engineer his way, and he will use indestructible materials, and put them together in a manner that will defy the action of the elements and of time. The best station houses, consequently, are constructed of stone, iron, and glass. The bridges are almost universally of stone or iron. The cuts and embankments are reduced to an uniform slope, and turfed. Instead of fences, the leading lines are enclosed by hedges, thrifty and well trimmed. On my trip from Liverpool to London, on the first day of June, these were in full bloom. This line runs through one of the best and most highly cultivated portions of England, and the trip presented a striking contrast to that on most American railways, which generally seek the most uncultivated and poorest portions of the district they traverse, while on either side of them little is seen, save naked banks of earth covered often with charred remains of trunks and stumps of trees, and a poor apology for a fence in the shape of posts connected by a few frail pieces of boards.

This manifest superiority of English railways is very agreeable to the eye, and in fact to the comfort of traveling; but it has been obtained (though not necessarily) at a cost which compels a high rate of charges for transportation, and has rendered, and must continue to render, the investments in them unproductive. According to the report of Captain Galton to the Committee of the Privy Council of the Board of Trade, for 1856, the total cost of the railways in England and Wales was £244,300,855. The total mileage was 6,153 miles; showing an average cost of £39.705, or nearly $200,000, per mile. This sum exceeds five times the average cost of American railways. The total earnings of the above mileage was £19.314,999, which is at the rate of £3,191, or $15,955, per mile; or about 7¼ per cent *gross* on its cost. The net earnings equal very nearly 4 per cent. The total cost of operating the roads in 1857 was £9,369,234—leaving £9,945,755 as net earnings. Of this sum. £5,371,498 went for interest and dividends on preferred shares, leaving £4,574,257 as net earnings for dividends on £125,554,694 ordinary shares. Such is the pecuniary results for one of the most favorable years English railways have known; that of the present year being much less so, from causes operating upon English, in common with American roads.

As an investment. therefore, English railroads have proved failures under conditions most favorable to success. England has a population of 360 to the square mile, one-half of which is engaged in manufactures and commerce. The number of passengers exceeds five times her entire population. The average rate of charges, for the accomodations, is high. The country is not unfavorable to the construction of roads. Labor and material are cheap—cheaper than in the United States. How is it, then, that English railways have been so expensive, when they could be so cheaply constructed, and are so unremunerative in the face of enormous receipts? The explanation appears to me to be a simple one, and all

the more important to be stated, for the reason that the excessive cost of roads both in England and America is often due to the same cause.

The parties who plan and execute, and superintend the railways of this country neither furnish the means for their construction, nor are they interested in their results. Whether they cost much or little, or prove productive or unproductive, is all the same to them. There is, consequently, no necessary relationship between the sum to be expended on a railway and the income it will produce. We readily see how such relationship is preserved in the mind of the manufacturer in the construction of an iron or a cotton mill, that success is a necessary sequence of his premises. We can also see that if a manufacturing establishment should be got up and conducted as are railways, it would inevitably break down. The English engineer, who constructs a railway, ignores all such considerations. He simply carries out the idea of what a work should be. The more expensive and elaborate it is, the greater often will be the credit gained. The Britannia and Victoria Bridges will, very likely, immortalize their projectors, although every cent invested in them may be lost; the same may be said, to a certain extent, of the magnificent structures that are found upon almost every line of road in England. They are grand affairs, and are a great convenience to the public, purchased, however, at the cost of high charges for traveling, and loss of income to stockholders.

RAILROAD ACCIDENTS.

We draw some interesting facts from the British Board of Trade Report, on railway casualties for 1857, by Captain Galton. The French Minister of Public Works has also, through a commission appointed for that purpose in 1854, made an elaborate report, detailing with great minuteness the railroad disasters in France.

It appears from Captain Galton's report, that during the year 1857, 25 persons were killed and 631 wounded on British railways, "by causes beyond their own control." Of the 25 deaths, but one occurred in Scotland and none in Ireland. Taking into account the number of persons carried, this gives one fatal accident to every 5,200,000 passengers carried. This, though a large number, is yet neither as great as that of 1851 nor 1853.

Subjoined is the result of a series of comparison of railroad disasters in various countries during several years:—

	Passengers carried.
Prussia, one killed or wounded to every	3,294,075
Belgium, one killed or wounded to every	1,611,237
France, one killed or wounded to every	375,092
England, one killed or wounded to every	311,345
United States, one killed or wounded to every	188,459

These figures can no wise be considered absolute; being the result of too contracted a system of comparisons.

From the commencement of the railroad system in France, in 1835, up to 1855—a period of twenty years—513 accidents happened, of which 274 were from running off the track, and 239 from collisions. In these accidents 111 persons were killed, giving one person killed for every 1,703,123 passengers carried. To this must be added 393 wounded; and, taking killed and wounded into account, it presents one killed or wounded for every 375,092 passengers carried. This does not include agents, or persons who suffered from causes within their own control, as suicides, &c. Of these 513 accidents, 252 were the fault of the employees, their carelessness or violation of the rules bringing on collisions, and 261 from defects in the state of the road, locomotive, &c.

There is one aspect of railroad accidents that is very surprising, and which should be stated as a *per contra*. When we take into account the immense number of persons who travel by railroad, it turns out that, when we come to balance the accidents on railways, with those happening to an equal number of persons by the old methods of transport, the advantage is entirely on the side of railroads. Thus, in the French post system, there occured in the period from 1846 to 1856, accidents causing 20 deaths and 238 wounded for 7,109,276 passengers carried, giving one to every 355,463—that is. nearly seven times as many deaths as occur in an equal number by railroad, even according to the reckless American system. According to Dr. Lardner's computations, 366,036,923 passengers must travel one mile to cause the death of one railroad employee. The chances of a person's meeting bodily injury in traveling one mile of railroad, are 8,512,486 to one. And the chances of one's meeting with a fatal accident in traveling one mile of railroad, are more than sixty-five million to one! What a consolation for a cracked cranium or a fractured femur!

COST AND MANAGEMENT OF ENGLISH AND AMERICAN RAILROADS.

A comparison of the reports, and an examination into the details, of the management of railways in this country and in Europe, disclose the following comparisons :—

Annual expense of American railways	$120,000,000
" " English railways, same mileage	80,000,000
Annual difference	$40,000,000
Average annual expense for maintenance of way of American lines	$33,000,000
" " of English lines, same mileage	12,500,000
Annual difference	$20,500,000
Average annual cost of fuel for American lines	$18,000,000
" " " English lines, same mileage	7,500,000
Annual difference	$10,500,000
Total annual expenses of American railways	$171,000,000
" " English "	100,000,000
Total annual difference	$71,000,000

In regard to the net results and financial profits of administration, the contrast between the two systems is remarkable :—

	Receipts per mile run.	Expenses per mile run.	Percentage of expenses on receipts.
England, (1856)	$1 44	$0 63½	44
France, (1855)	2 03	0 87⅓	43
New York, (1855)	1 76	1 00	57
Massachusetts, (1855)	1 69	1 05	62
" (1856)	1 83	1 08	59

The expenses for "maintenance of way, engines, and working," are thus stated :—

	Per cent of total expenses.	Per cent of gross receipts.
New York railroads	70½	40.1
Western "	80	43.8
English railways, (1856)	57	25.3
French " (1855)	48	20.7

Some of the expenses of American railways are necessarily higher than those of the English. We must pay more for fuel; still more disproportionately for labor and service, the wages of day laborers here being at least double that in England. The price of land, however, is greater there. The road-beds in the Northern States are annually upheaved by frost. and the snows of winter, alternating with the extreme heats of summer, affect the wooden substructures. Our extraordinary freshets in the spring inflict immense damage upon the roads. The cost of engines and cars is greater; and the mechanical repair of both is made at a greater price.

Our roads are not unfrequently built through fresh-broken wildernesses; and, it must not be forgotten, are constructed and maintained, less with an idea to their profitableness, as investments, than for the incidental advantages they confer on the neighboring country and the terminal cities and villages.

CUBAN RAILROADS.

The Bay of Havana and Matanzas Railway was recently opened with great ceremony to Guanabaco. His Excellency, the Captain-General, and suite were present, and also the Right Rev., the Bishop of the Diocese. As on all public occasion in Cuba, there was a great display of the military. The steam ferry-boats connected with the line, which ply from this city to Regla, were gaily decorated with flags and streamers, as was also the railroad depot at Regla—nor could I avoid observing the stars and stripes floating nobly among the rest from the pretty ship Riga, of Marblehead, which was at her berth alongside the company's wharf.

On the 17th August, His Excellency, the Captain-General, accompanied by General Manzano, Segundo Cabo, Brigadiers Echavarria, the political Governor of this city, the Director of Public Works, Don Domingo, and Don Miguel Aldumer, and several other gentlemen, embarked in a special train of the Havana and Gaines Railway to inspect a new iron bridge that has been erected for the purpose of the railway over the River Almendares. The bridge is upwards of seventy feet in length, and is a light and elegant yet strong structure.

The new railroad depot, for the railway now building between Regla and Matanzas, is an elegant gothic building, nearly 300 feet in length. and about 60 feet in breadth. The painted doors and windows are all of solid mahogany. These two new splendid locomotives. called "the Marquis de la Habana" and "Jacinto G. Laninaga," were built at Patterson, New Jersey, and each weighs eighteen tons. There is a third locomotive, the "Edward Fesser," built at Philadelphia, employed on the line. The first-class passenger cars, are possessed of admirable ventilation and general comfort and elegance. The cars were built in Jersey City. The rails possess uncommon strength, weighing no less than 68 pounds to the yard. This railway will prove of immense public benefit; at present, six or seven hours are occupied in going by a circuitous route, change of cars, &c., to Matanzas. By the new line, which is direct to Matanzas, a man will be able to take an early train and be in Matanzas in good time for breakfast, remain there through the day, and return to this city in the evening.

FRENCH RAILROADS.

The imperial government, as is well known, has long favored the amalgamation of the leading lines of railroads in this country, and is well satisfied to see them reduced to five or six companies, enjoying an immunity from that private and public competition which has often proved so fatal to railway enterprise elsewhere. But the French railways, though undoubtedly the best established, the most remunerative, and, upon the whole, perhaps the best administered in the world, have not been allowed to gain their present position and privileges without paying some equivalents. In return for its patronage and protection, the government has imposed the condition of carrying out and completing a vast number of branches, of great service and benefit to the localities through which they pass, but by no means certain to be remunerative for the amount of capital expended on them. To carry on these works, the companies have been compelled to issue their *obligations* (bonds or debentures) in a continuous stream, chiefly through the intervention of the Bank of France, which, at their request, undertook to negotiate 240,000,000 worth of their securities, making advances the meanwhile, from time to time, to the companies. The effect of this state of things has been, in the first place, to keep the public stocks at their present low figure, by daily feeding the market with the issue of these railway bonds, and in the next place, to cause the credit of the companies to become seriously affected, both by the redundancy of their paper in the market, and also by the apprehension of the public that the numerous branch lines which they are compelled to construct would tend to anything rather than to increase the dividends of the shareholders. Under these circumstances, the railway companies have been, for some time past, appealing to the administration for the modification of a contract of which they profess to find the conditions too hard for them; and an agreement for their relief appears to have been at last come to with the Minister of Public Works. The course adopted seems, in fact, to amount to a guaranty to 4fr. 68c. per cent on the part of the government. That is to say, a dividend is to be paid first at the rate of the last returns of profits per *kilometre*, and the residue is to be applied to working expenses. If there be more than sufficient for the latter, the supplies will go to increase the dividend; if less, then the government steps in to make up the deficiency to the extent of 4.68 per cent. In addition to the above arrangement, it has been decided that no more railway paper shall be negotiated daily by the Bank of France. One hundred and sixty-five millions of *obligations* have been already so issued; the remaining seventy-five millions are to be issued at once, and the money raised by public subscription, as in the case of the State loans during the war.

CINCINNATI, HAMILTON, AND DAYTON RAILROAD.

Years.	No. of passengers.	Passenger earnings.	Freight earnings.	Mails and express.	Total.
1852-53...	286,828	$191,700 93	$122,877 25	$7,714 99	$321,793 17
1853-54...	342,954	274,650 39	176,142 11	12,228 95	463,021 45
1854-55...	370,189	259,915 35	211,562 79	12,142 34	483,620 48
1855-56...	352,451	236,568 12	221,697 54	13,620 04	471,885 70
1856-57...	362,630	231,571 54	268,819 20	17,943 21	518,333 95
1857-58...	370,957	232,596 95	214,272 37	18,868 93	465,738 19

JOURNAL OF MINING, MANUFACTURES, AND ART.

ESTIMATES OF COAL AREA.

P. W. SHEAFER, Esq., Civil and Mining Engineer, of Pottsville, Pennsylvania, has presented several estimates of the area of the anthracite coal regions of Pennsylvania, together with statistics pertaining to the bituminous coal area of this country and of Europe. To this is added a few remarks upon the comparative importance of our anthracite and bituminous coal fields at present and in the future :—

ESTIMATES OF THE PENNSYLVANIA ANTHRACITE COAL FIELDS.

	Square miles.	Acres.
Mr. Packer's report to the Legislature	975	624,000
Mr. S. B. Fisher—		
1. Southern or Schuylkill Coal Field	119	75,950
2. Middle Coal Field, including the Mahanoy Basin, 59,450 acres	133	85,525
3. Wyoming or Northern Field	120	76,805
Total, according to S. B. Fisher	372	238,280
R. C. Taylor—		
1. Southern or Schuylkill Coal Field	164	104,960
2. Middle, containing the Mahanoy and Shamokin Coal Basin.	115	70,600
3. Wyoming or Northern Basin	118	75,520
Total, according to Taylor	397	254,080

ESTIMATE MADE FROM THE OUTLINES OF THE COAL FIELDS ON ROGERS' NEW MAP, BY P. W. SHEAFER.

1. Southern or Schuylkill Coal Fields.

	Square miles.	Acres.
East of Tamaqua	16	10,240
Tamaqua to Pottsville	36	23,040
Pottsville to fork of the Basin	55	35,200
North Fork, Lykens Valley prong	16	10,240
South " Dauphin "	15	9,600
North Mine Hill Range	8	5,120
Total Southern Field	146	93,440

2. Middle Coal Field.

Shamokin District		50	32,000
Mahanoy District		41	26,240
Beaver Meadow	2.3 square miles of mammoth bed, in all	6.4	4,096
Hazleton Distr't	8 " " " "	13	8,320
Big Black Creek	2.3 " " " "	13.3	8,512
Little "	0.5 " " " "	2.3	1,472
	8.1 square miles of mammoth bed, total	126	80,640
3. Wyoming Coal Field		198	126,720
Total, as estimated from Rogers' map		470	300,800

It is also interesting to consider the relative areas in the various coal fields which are drained by the several great water courses which form the outlets to the Atlantic seaboard. The course of trade has, however, diverted the product of certain portions of the coal fields from the natural channels; hence, two systems of drainage may be taken into account—1st. *The natural drainage of the*

streams. 2d. *The artificial drainage,* or transit of the products in part by lines of transportation which do not follow the water drainage.

NATURAL DRAINAGE ESTIMATED IN J. DUTTON STEELE'S REPORT TO THE READING RAILROAD FOR 1856, FURNISHED BY H. W. POOLE.

	Square miles.	Total, square miles.
By the Schuylkill—		
Southern Coal Field	70	70
By the Lehigh—		
Southern Coal Field	3	
Middle Coal Field	17	
	—	20
By the Susquehanna—		
Southern Coal Field	42	
Middle Coal Field	104	
Wyoming	120	
	—	266
Total		356

ESTIMATE FROM ROGERS' MAP, BY P. W. SHEAFER.

	Square miles.	Total, square miles.
By the Schuylkill—		
Main body of the Southern Coal Field	85	85
By the Lehigh—		
East end of Southern Field	3	
Part of east end of Middle Field, (Beaver Meadow and Hazleton Basins.)	22	
	—	25
By the Susquehanna—		
Wyoming Coal Field	198	
Shamokin	50	
Mahanoy	41	
Part of eastern end of Middle Coal Field	13	
West end of Southern Coal Field	58	
Drainage by the Susquehanna	360	
	—	360
Total		470

ARTIFICIAL DRAINAGE, FROM J. DUTTON STEELE'S REPORT.

By the Schuylkill—	Square miles.	Acres.
Southern Field	92	58,880
Middle Field	42	26,880
By the Lehigh—		
Southern Field	4	2,560
Middle Field	17	10,880
By the Susquehanna—		
Southern Field	19	12,160
Middle Field	62	39,680
Wyoming	60	38,400
Eastward from Wyoming to New York	60	38,400
	356	227,840

ESTIMATE FROM ROGERS' NEW MAP, BY P. W. SHEAFER.

By the Schuylkill—	Square miles.	Acres.
Middle Coal Field, Mahanoy	41	26,240
Southern Coal Field	93	59,520
Artificial drainage by the Schuylkill	134	85,760

By the Lehigh—		
Eastern end of Middle Coal Field	22	14,080
Eastern end of Southern Coal Field	13	8,320
Portion of Wyoming, via Lehigh and Susquehanna Railroad	10	6,400
Artificial drainage by the Lehigh	45	28,800
By the Susquehanna—		
Western end of Wyoming Coal Field	80	51,200
Shamokin Coal Field	51	32,000
Western end of Southern Coal Field	40	25,600
Part of eastern end of Middle Coal Field	13	8,320
Artificial drainage by the Susquehanna	183	117,120
Scranton routes and Delaware and Hudson Canal—		
East end of Wyoming to New York, &c	108	89,120
	470	300,800

The following table, principally by R. C. Taylor, exhibits the area of the coal fields in the several States:—

Massachusetts. Rhode Island. (Hitchcock.)	500	Ohio	11,900
Pennsylvania	15,437	Indiana	7,700
Maryland	550	Illinois	44,000
Virginia	21,195	Kentucky	13,500
N. Carolina, from Olmstead's data.	1,000	Tennessee	4,300
Georgia	150	Michigan	5,000
Alabama	3,400	Missouri	6,000
Total			134,432

Of these, Pennsylvania alone possesses anthracite coal, and of the large supply owned by this State, the anthracite, amounting to 470 square miles, as before shown, is but a small portion. The coal field of Rhode Island and Massachusetts is considered by Professor Hitchcock as a metamorphic coal field—being truly neither anthracite nor bituminous. The same eminent authority believes that important seams of workable coal will yet be found in these fields, although none are now known to exist.

Professor Hitchcock estimates our coal area as follows:—

	Square miles.
The great Appalachian Coal Field extends from New York to Alabama 720 miles in length	100,000
Indiana Coal Field, 350 miles in length	55,000
Michigan Coal Field, 150 miles in length	12,000
Missouri and Iowa as mapped by Prof. Owen	55,000
Massachusetts and Rhode Island	500
Total	222,500

The following summary presents the total coal area of the United States and of several countries of Europe, according to the estimate of R. C. Taylor:—

Area of the coal fields of the United States	square miles.	133,132
British America, bituminous	18,000	35,504
Great Britain, bituminous	8,139	
Great Britain, with Ireland, anthracite and culm	3,720	
Spain	3,408	
France	1,719	
Belgium	518	
Anthracite of Pennsylvania estimated from Rogers' new map	square mil's.	470

The bulk of the coal trade of the United States is in anthracite, and although

the trade in bituminous coal is rapidly increasing on the Western rivers, yet anthracite promises to continue to be, for several generations, the principal fuel of the Atlantic States. What may be the condition of the coal trade of this country at the end of another century cannot be probably conjectured. Either the anthracite mines in course of time must greatly increase in value, because comparatively soon exhausted, or else the bituminous coals must become the great source of supply for the country. When I compare the narrow limits of the anthracite fields, confined to the Atlantic slope of the Alleghanies, and cut off from the great body of the country by that mountain ridge, with the wide-spread bituminous fields which extends over parts of thirteen great States, I am forced to the conclusion that within one hundred years the great bulk of our coal trade must be supplied by the softer coals.

But as the time when this will occur is yet far distant in the future, we need not give way to dismal forebodings of the consequences of this change in the course of trade.

Of one thing, however, we may be assured, viz., that we do not sufficiently appreciate the great value of the anthracite coal fields. With the impetuosity characteristic of our nation, we crowd the whole extent of the coal districts with railroads above and below the surface—open mines, erect machinery, cut tunnels, sink slopes—each individual striving to out-do his neighbor in the product of his mines—the miners, operators, landowners, transporters, and all engaged in the trade, urging on the work of rivalry as if it were necessary to mine all the coal of the State within this century. To such an extent has this injudicious system been pursued, that at this early day much of the coal above the water level has been exhausted, without adequately remunerating those engaged in the production.

Scarcely a dozen of large collieries in the southern coal basins are now above the water level; nor are there as many below the water level which are now working their first lift, nor at the end of the present leases will there be as many working their third lift.

England consumes 6,000,000 of tons of coal annually—London consumes 500,000 tons, which produces 4,500,000,000 cubic feet of gas. The main gas arteries of that great city are 1,600 miles in length. The coal trade of Great Britain, in 1856, amounted to more than 66½ millions of tons.

Our own coal trade is yet in the weakness of infancy, its annual product, in 1857, being but 7½ millions of tons, and the aggregate product, since its commencement in 1820, being but 77½ millions, or in 37 years a total product but one-sixth more than the annual product of Great Britain. But this is no disparaging contrast, when we compare the 470 square miles of our anthracite coal fields with the 11,859 square miles of coal area in England, Ireland, Scotland, and Wales. If we consider the length of time in which coal has been used in Great Britain, and then reflect that our own coal trade has but just begun, we shall find much cause for hope and encouragement. To my mind a much stronger contrast is presented, if we place our small patch of 470 square miles of anthracite coal besides the 200,000 square miles of our bituminous districts. How will the products of these fields compare in the future? I leave this for the consideration of my readers.

LAKE SUPERIOR COPPER MINES.

The following table shows the quantity and value of copper shipped from the mining region of Lake Superior, from the commencement of operations in 1845 to January 1, 1858 :—

Mr. Whitney, in his "Metallic Wealth of the United States," estimated that, to the close of 1854, there had been received in ingot copper, in tons of 2,000 lbs.....tons 7,642

Rough copper shipped from 1855 to 1857, inclusive—

Districts.	1855.	1856.	1857.	Total.
Ontonagon.....tons	1,984	2,767	3,190	7,941
Portage Lake.....	315	462	704	1,481
Keweenaw Point.....	2,245	2,128	2,200	6,573
Total.....	4,544	5,357	6,094	15,995
Add product of November and December, 1857, raised but not shipped, estimated.....				888
Total.....				16,883
Equal, when smelted, at 67 per cent, to.....				11,312
Total product from 1845 to 1857, inclusive.....				18,954
Valued, at $500 per ton, at.....				$9,477,000

THE NEW METHOD OF OBTAINING SILK.

It appears from the Indian journals that some slight notice has been taken of an Italian discovery, already practically and extensively carried out in France and Syria, for obtaining silk, at a most moderate cost, direct from the bark of the mulberry tree, and for converting the residue, after the silk has been extracted, into a pulp, suited better than most materials for the manufacture of paper. This process has been secured by patent in England and France, and by an Imperial firman in Turkey; and it is said that steps are about to be adopted for taking advantage of an extension of the patent laws in India to secure the right of the process to the discoverers, and to work it in that country. In Bengal alone millions of mulberry plants, which would yield tons of silk and of pulp, are now next to thrown away—that is, employed as fire wood, for no other use has hitherto been found for them. There is nothing peculiar in the bark of the mulberry tree. It is the chemical process in the stomach of the silk worm, and the subsequent fine spinning, that makes the silk—given these, silk may be produced from any fiber that can be got of sufficient strength. Some fibers are better than others, but of these the best is not that obtained from the bark of the mulberry tree. At present the silkworm is the most experienced chemist, and the cheapest dresser and spinner of fine numbers, yet occupied in the manufacture and spinning of silk from fiber, which it finds readiest of the right quality in the leaf of the mulberry tree.

MANUFACTURE OF VELVETS.

R. Shiers, Jr., has obtained a patent in England for the manufacture of silk velvets after the manner of those which are now manufactured of cotton, by employing silk threads for the wrap and weft, so combined, adapted, and attached to each other as to gain the required surface, heretofore produced by forming loops with the wrap.

STATISTICS OF AGRICULTURE, &c.

WHEAT CROP.

The New York *Courier and Enquirer* remarks, in relation to the wheat crop, that, in the several States, it may be considered as harvested, and partially ready for market. We can, therefore, give the following returns with some degree of certainty :—

NEW YORK.—The crop is under the last year's about fifteen per cent, but the quality is much better.

PENNSYLVANIA.—The crop is fully an average one, but ten per cent less than last year per acre.

MARYLAND.—The crop is an average one, but less per acre, and better in quality, than last year.

VIRGINIA.—The wheat crop in this State is twenty per cent less than last year, for the amount of ground in cultivation, and the quality not much superior.

NORTH CAROLINA.—The crop in this State is probably nearer to a total failure than in any other—the yield being fully fifty per cent less than last year, and poor in quality.

KENTUCKY.—The crop is above the average, but less than last year; the quality is, however, unsurpassed.

TENNESSEE.—The crop is a good one, but under the average in the yield per acre. The quality is good.

MISSOURI.—The amount of the wheat crop in this State is not fully known, but it will generally compare well per acre with the other Western States.

OHIO.—The yield of wheat per acre is fully twenty per cent less than last year, but from the increase of land in cultivation the decrease from an average crop will not much exceed ten per cent.

IOWA.—The accounts from the center of the State, in regard to the wheat crop, are very gloomy. The crop will hardly average ten bushels to the acre. Oats are generally a failure.

ILLINOIS.—In Southern Illinois the yield of wheat is about a fair average, rather under than over. The winter wheat has been generally successful, and spring wheat the reverse. In other parts of the State the yield will not be over half the usual crop.

INDIANA.—In Indiana the yield of wheat has been from one-half to two-thirds of the average crop.

MINNESOTA.—The yield of wheat in this State is of better quality than usual, and in quantity nearly two-thirds the usual crop.

MICHIGAN.—The yield of wheat in Michigan is over two-thirds an average crop, and generally of good quality.

WISCONSIN.—The crop of wheat is up to the average, the greater extent in cultivation compensating for any deficiency in the yield per acre.

The upward tendency in wheat, promising good prices, and the present fair prices, will, we think, make the receipts at tide-water this year nearly equal to those of last year. The quality of last year's wheat is such that an attempt to store it longer will be ruinous. We have reason, therefore, for believing that the movement of the crop to the seaboard will be active for the rest of the year.

AMERICAN CHAMPAGNE.

The manufacture of champagne wine in the United States is no longer an experiment; it is an established fact. The ingredients in use, for the production of champagne in this country, are the same as are employed in France and Ger-

many. The French champagne, which originally obtained such great celebrity throughout the world, was manufactured from the common pear, and that species of fruit was for many years in such request, that it ultimately became almost extinct, so that the producers of that delicious and elegant wine were compelled to seek for some other fruit which was produced in greater abundance. It is believed that the first champagne made from the white wine was made in Germany; in fact, much of the best champagne offered in the market of the United States is the produce of the German vinyards. All the champagne wines now in use are manufactured from the white wine, and the greater part of it is from the white wine of the German States. Of late years, the vinyards of France have not been so productive as formerly, and the result has been, that much less of the rich wines have been manufactured into champagne than heretofore. But as all the mystery, which has for so many years been allowed to surround the manufacture of this favorite beverage, has been revealed and exploded by Frenchmen themselves, there is no reason why as good champagne should not be produced in this country as in France or Germany. The same wine used by them is imported into the United States in vast quantities, and the same men who have served their long and faithful apprenticeships in the French and German wine factories, and bottling establishments, have been brought to this country, so that the material in all its details is here. There is a great deal of very poor French champagne that finds its way into our markets; much of it is highly charged with sulphur and other obnoxious ingredients, used for the purpose of driving the carbonic acid gas into the head, and will thus create a sudden delirium or disorder of the intellect, and not unfrequently will produce *mania a potu*. Alum is also introduced into the wine in the incipient stages of its manufacture, and is injurious in its effects upon the system. These practices, however, are only resorted to by those who produce the poorest quality of American champagne, and their poisonous liquids are easily detected. The higher and more respectable order of manufacturers repudiate those dishonorable means to palm upon the public such baneful beverages. Good American champagne is equal to the French commodity, and there is no necessity for counterfeiting French labels, corks, bottles, foil, or any other branch of the business.

WINE-MAKING IN TEXAS.

The progress of wine-making near Brenham, in Texas, is thus described in a letter to the New Orleans *Picayune*:—

We have been engaged during the last month in making wine from the Mustang grape, under the direction of a French gentleman, M. Gerard. But for the scant supply of labor available for the purpose this season, and so much of other work to do, we could easily have made one hundred barrels of rich wine, without going over five miles in any direction to gather grapes. As it is, we have had to content ourselves with less than half the quantity. Of the process of wine-making, I will treat at some future time. I am fully satisfied that Texas possesses in this grape an inexhaustible source of wealth. The wine is a rich, acid, red wine, stronger in alcohol than any other natural wine, it is positively asserted. What we have made is the pure juice of the grape, without the addition of one grain of sugar or drop of spirits of any kind. Some small experiments, it is true, were tried in that way, but which resulted in every instance in injury to the wine.

AGRICULTURE IN FRANCE.

The *Moniteur* contains a long report to the Emperor from the Minister of Agriculture and Commerce on the labors of the Cantonal Commissions of Statistics:—

The document begins by stating that a decree of the 1st of July, 1852, ordered the establishment, in each of the 2,846 cantons of the empire, of a commission charged to obtain annual statistical returns of the most important agricultural facts, such as the quantity of land cultivated, the yield of the various crops, &c., and every ten years to group the statistics, so as to show the aspect, the state of agriculture, and the economic situation of the agricultural classes. It then makes some remarks on the importance of such information, and observes that to obtain it requires great practical knowledge, activity, patience, and perseverance. After mentioning, as a proof of that importance, that both Charlemagne and William the Conqueror caused similar intelligence to be collected, and after glancing at what was done to procure it in France from the time of Louis XIV. down to that of the first empire, the report goes on to describe the manner in which agricultural statistics are obtained in Belgium, Prussia, most of the German States, the Scandinavian countries, Italy, and the United States; and it expresses great surprise that England, from the hostility of her farmers, should be one of the three countries in Europe, the other two being Portugal and Turkey, which have no regular system of agricultural statistics; a circumstance the more extraordinary, as in both Ireland and Scotland statistics are carefully attended to. The report, after enumerating the advantages of agricultural statistics, (the most important of which is that, in case of an insufficient harvest, commerce is enabled to procure supplies of foreign grain before an excessive rise in prices takes place,) remarks that in France statistics are more difficult to obtain than in any other country in Europe, inasmuch as the agricultural populations, thinking that the object of them is to impose new taxes, are reluctant to give information; as, from not keeping correct accounts, they are not able to state with precision the quantity of land cultivated, nor that of grain sown, nor the expense of cultivation, nor the yield obtained; as in France there are not fewer than 42,000,000 hectares (the hectare is two-and-a-half acres) of lands under cultivation, which are divided into 130,000.000 holdings, possessed or occupied by at least 7,000.000 heads of families; as France, possessing great variations of climate, produces not only wheat and other grain, but vines, silk, textile plants, &c.; and, lastly, as the technical language of agriculture is not the same in all provinces. To overcome these difficulties requires, says the report, great energy and perseverance, and great care in the choice of the cantonal commissions. It then describes how the statistics are obtained. A series of questions are sent every year from the Ministry of Agriculture to the commissions, and are transmitted by them to sub-commissions in every commune. These questions are sent back to the commissions answered in the latter part of October; that is, when all the crops are got in. The commissions carefully verify the truth of the answers given, and send in a general return for the whole canton to the sub-prefect of the arrondissement, who also causes it to be examined. The sub-prefect, in his turn, sends in tables for his arrondissement to the prefect of the department, and the prefect has them examined by a central commission, and by the Chamber of Agriculture; after which they are forwarded to the Ministry of Agriculture, where their principal points are summed up and classified; but, previous to this, the Ministry, in the first fortnight of October, receives from the presidents of commissions general details, which enable it to estimate the state of the harvests. The report concludes by stating that the commissions are now beginning to work well, and that the prejudices of the farmers against giving returns are beginning to wear away; and it recommends to the Emperor a long list of members of the commissions in all of the departments of the empire as deserving of medals or "honorable mentions" for their services. The official journal declares that the Emperor approves the report, and the grant of recompenses recommended.

NEW INSPECTION OF CHICAGO SPRING WHEAT.

The following, which we find in the Chicago papers, may be of interest to many of our readers:—

To prevent any misunderstanding on the part of our readers and the public, we give below the designation of the various grades into which Chicago spring wheat will be inspected in this market after the 15th of June, 1858:—Chicago club wheat, No. 1 spring wheat, No. 2 spring wheat, rejected spring wheat.

The "Chicago club wheat" grade is intended to comprise a very superior quality of spring wheat which comes to this market, of the kind known as "club," or equal to it in every respect. It must be entirely free of dirt, oats, or other substances—have a plump, sound berry, and be perfectly sound.

"No. 1 spring wheat" will represent the lower qualities of that which is at present classed as "extra." It must be perfectly free of dirt, screenings, and other substances, and be sound and dry. This grade will, in all probability, be our standard wheat.

"No. 2 spring wheat" will represent our common spring wheat, sound and dry, but mixed with dust, or other substances. All good wheat coming to this market in a dirty condition will be inspected into this grade.

"Rejected spring wheat" will represent all wheat coming to this market in an unsound or damaged condition, whether it be dirty or clean.

VALUE OF HORSES.

It is estimated that there are 50,000 horses in the State of Massachusetts, 221.000 in the New England States, and 4,500,000 in the United States. Ohio stands foremost in the number of horses, New York next, Pennsylvania next, Kentucky next, and Minnesota last of all. Estimating the horses of Massachusetts at $75 per head, their value will be $3,750,000; and all the horses in the United States, at the same rate, would make a value of $337.500,000, or more than three times the whole cotton and woolen manufacturing capital of the Union. The horse interest is a most important one to the wealth and prosperity of the States.

HOP CROP IN NEW YORK.

The Cooperstown *Journal*, after remarking upon the effects of blight and wind storms, states:—

We have seen a great many yards, located in this and two or three of the adjoining counties, within the past week, and have reliable information from gentlemen of experience in hop growing, who have traversed nearly the entire hop districts—and from such sources of information, have no hesitation in saying that the growing crop does not promise to exceed one-half the ordinary average. As soon as this state of things became known, the dealers advanced their rates, and have purchased all the old hops they could; they have also made contracts, to a considerable extent, for the new crop. Prices are very unsettled just at present, and it would be difficult to give proper quotations. Growers, who have not already contracted, would now prefer to take the risks of the market, and dealers will not be in haste to sell, except at large advances.

Most of the old hops in the country are held by regular dealers and speculators; a fair proportion is still in the hands of the more wealthy class of growers; some of the brewers hold as many as they may wish to use, with new hops, in the manufacture of beer. A large class of small brewers, however, are without any hops.

The news from England, received at this place during the past week, is to the effect that the crop there has been considerably damaged by high winds; the crop on the continent will be a short one; and, therefore, no export to this country will probably take place.

A material increase in the brewing business is reasonably anticipated, compared with last year; and from present appearances the hops of 1857 and 1858 will all be needed. For three or four years past the brewers have had everything their own way, in regard to hops, and the growers have not been fairly remunerated. This year, if the brewers do not have to pay over fifteen to twenty cents, they may consider themselves well off. They may rely upon it, the quantity of prime, No. 1 hops brought to market this year will be comparatively small.

STATISTICS OF POPULATION, &c.

EMIGRATION FROM STATE TO STATE.

According to the returns of the last United States census, remarks the Boston *Post*, there are more natives of the Southern States residing in the North, in proportion to Southern population, than of the Northerners who live in the South. In Maine there are to be found 3,092 persons who were Southerners by birth; whereas in Mississippi there are but 2,566 natives of the Northern States. The smallness of the number of New Englanders in the South is quite remarkable; and we think that the largeness of the number of the natives of the South to be found in New England will quite astonish those who have not examined the subject. For example, there are 271 natives of Virginia residing in Maine, and only 94 natives of Maine residing in Virginia. The whole number of natives of New England residing in Mississippi is 125, while there are 1,023 natives of Mississippi residing in New England. These are examples of the state of things on a wide scale.

In looking over all the free States, we find that Massachusetts has 8,752 natives of the South, while New York has about 20,000. Other Northern States that have large numbers of Southern born inhabitants are Pennsylvania, Ohio, Illinois, and Indiana.

A few facts will further show that Southern men emigrate much from one State to another in their own section. Of the inhabitants of Virginia, 10,000 were natives of North Carolina; as many of Alabama; 46,000 of Tennessee, and 54,000 of Kentucky. To people North Carolina, there came 37,000 from Georgia, 28,000 from Alabama, 72,000 from Tennessee, and 14,000 from Kentucky. As a general law, the emigration flows westward from State to State, on the parallels of latitude. For example, emigrants from New England find their homes in New York, Ohio, Michigan, Wisconsin, Illinois, and Iowa, while the Georgian seeks an adopted home in Alabama, Mississippi, Louisiana, or Texas; and yet we find many exceptions to this law. It was, perhaps, owing, in part, to this general tendency of emigration in this country that it flowed rather more naturally into Kansas from the free than from the slave States.

Emigration has flowed very rapidly from the seaboard slave States to the Western and Southwestern. Two or three facts will indicate the vast extent of it. From South Carolina alone, 186,479 native white Carolinians have been distributed through the West and Southwest. The population of Texas in 1850, was but 51,641; now, it is about 600,000, and mainly the result of emigration from States to the eastward of it. Foreigners, particularly Germans, have settled more in Texas than perhaps in any other Southern State. Germans began to settle in Texas as early as 1843, being invited there by Texas land speculators.

In 1845, 2,000 families, embracing 5,200 Germans, had been induced to cross the sea, by promises of great advantage, to enter a State that was that year annexed to the United States, an event which was followed by a war with Mexico. Within a few years there has been a considerable emigration from the free States to Virginia, Kentucky, Missouri and other slave States, with a view of introducing free labor for agricultural and other purposes. Thus slave labor has gradually pressed further South. Such processes may have something to do in promoting a general system of emancipation in the northern slave States.

POPULATION OF CANARY ISLANDS.

The Canary Islands are thirteen in number, the most eastern of which is only one hundred and fifty miles from the coast of Africa. Six are quite inconsiderable in size, being accumulations of rocks rather than inhabited or inhabitable islands, whose names are Gracissa, Rocca, Allegranza, Santa Clara, Inferno, and Lobos. The size and population of the seven largest islands have been given as follows:—

	Square miles.	Population.	Population to square mile.
Teneriffe	219	70,000	958
Forteventura	184	9,000	142
Grand Canary	180	50,000	833
Palma	81	22,600	837
Lancerotta	78	10,000	384
Gomera	42	7,400	528
Ferro	21	5,000	714
Total	810	174,900	644

This estimate of the population was given some years since, from which time it has not probably increased but a trifle. Some, however, give the whole group of islands above 3,000 square miles.

CITY POPULATION AND VALUATION.

FREE CITIES.	Inhabitants.	Valuation.	SLAVE CITIES.	Inhabitants.	Valuation.
New York	629,810	$511,740,492	Baltimore	250,000	$102,053,189
Philadelphia	500,000	300,000,000	New Orleans	175,000	91,000,000
Boston	165,000	249,162,500	St. Louis	225,000	95,800,440
Brooklyn	225,000	95,800,440	Charleston, S. C.	55,000	36,127,751
Providence	55,000	58,064,400	Louisville	67,000	31,500,000
Cincinnati	210,000	88,810,734	Richmond, Va.	34,612	20,143,520
Chicago	112,000	171,000,000	Norfolk, Va.	17,000	12,000,000
Buffalo	75,000	45,474,476	Savannah	25,000	12,000,000
New Bedford	20,391	27,047,000	Wilmingt'n, N. C.	10,000	7,550,000
Total	2,083,000	$1,547,100,153	Total	787,000	$375,862,320

The slaves are included at so much per head in the average, in personal property. Boston is the richest city in the United States according to population—equal to one-twentieth of the value of the whole Union. Chicago stands next. The wealth, *per capita*, in the free States, is as $754 to $477 in the slave States.

Another table presents the following returns:—

	Property.	Revenue.	Expenditures.
In sixteen free States	$4,102,172,108	$18,725,211	$17,076,733
In fifteen slave States	2,936,090,737	8,232,715	7,249,933

The area of the free States in 1857, was 612,597 square miles, with a popula-

tion of almost twenty-two to the square mile. That of the fifteen slave States 351,448 square miles, with a population of a little over eleven to the square mile. White population of the free States in 1850, 13,233,670; white population in slave States, 6,184,477.

IMMIGRATION.

The number of arrivals in the United States from 1790 have been as follows:—

	Number.	Per annum.
1790 to 1810	120,000	12,000
1810 to 1820	114,000	11,400
1820 to 1830	203,979	20,397
1830 to 1840	778,500	77,850
1840 to 1850	1,542,850	154,285
1850 to 1858	3,019,951	377,494
Total immigration	5,779,280	

It will be seen that more emigrants arrived during the last eight years than during the whole of the sixty preceding years.

MERCANTILE MISCELLANIES.

MONEY OF THE ANCIENTS.

Before the invasion of Julius Cæsar, the natives of England had tin plates, iron plates, and rings, which were money, and their only money. On the authority of Seneca, a curious account is given of a period when leather, appropriately stamped to give it a certain legal character, was the only current money. At a comparatively recent date in the annals of Europe, Fredich the second, who died in 1250, at the siege of Milan, actually paid his troops with leather money. Nearly the same circumstance occurred in England during the great wars of the barons. In the course of 1350, King John, for the ransom of his royal person, promised to pay Edward the Third, of England, 3,000,000 of gold crowns. In order to fulfill the obligation, he was reduced to the mortifying necessity of paying the expenses of the palace in leather money, in the center of each piece there being a little, bright point of silver. In that reign is found the origin of the travestied honor of boyhood, called—conferring a leather medal. The imposing ceremonies accompaning a presentation. gave full force, dignity, and value to a leather jewel, which noblemen were probably proud and gratified to receive at the hand of majesty.

So late as 1574, there was an immense issue of money in Holland stamped on small sheets of paste-board. But further back in the vista of years, Numa Pompilius, the second king of Rome, who reigned 672 years before the Christian era, made money out of wood as well as leather; a knowledge of which might have influenced King John in the bold project of substituting the tanned hide of an animal for gold and silver, well known to his subjects to be exceedingly precious.

Both gold and silver appear to have been in extensive circulation in Egypt, soon after their potency was understood in Asia. From thence they were introduced into Carthage and Greece; and finally, traveling further and further in

a westerly direction, the city of Rome discovered the importance of legalizing their circulation.

Weight having always been of the first importance in early times, the shape of money appears to have been regarded with perfect indifference for a series of ages.

When the bits and portions of metal received as precious, were extensively circulated, it is quite probable that each possessor shaped them to suit his own conception, as practiced to some extent at this time in remote places in the East Indies. The payer away cuts off parts with shears, till he obtains, by exact weight, the stipulated amount. It was thus that men traveled with the evidence of their possessions in a sack. But great inconvenience must have resulted from this often tedious process; and as nations advanced in civilization and the economic arts, a certain mark or impression on certain sized pieces were acknowleged to be the sign of a certain weight. This facilitated negotiations, and afterwards led to further improvements, both in the shape, weight, and beauty of the external devices. By and by, the profile of the king, the date of the coinage, and the record of important events, gave still more completeness and character to the circulating article of exchange.

THE PAYMENT OF DEBTS.

The Chicago *Commercial Express* remarks:—"Among the compensating blessings of hard times, one of the greatest is, that it compels men, who otherwise would never stop, to cease running into debt. The recklessness with which the mass of men, in this country, plunge into debt, is only equaled by the deplorable laxity of morals which exists in the community regarding the obligations imposed by it. Of all the minor evils which curse society, there is none more productive of mischief than the procrastination and inveterate reluctance to pay of those who design to be moderately just—honest only when it advances their selfish aims. Thousands of men who roll in luxury, and deny themselves hardly a pleasure which money can buy, resort to the meanest and most pitiful shifts to evade the discharge of their petty debts; and only pay at the last extremity when their property is about to be wrested by the strong grasp of the law, and pretexts can no longer avail. Hundreds of others, who acknowledge that a debt is a moral lien on all their goods and estates, yet concealing their knavery under cover of shallow sophistry touching the duty which every man owes to his family, place their property beyond their creditors' reach, and practically assert that a debt is an obligation to pay when it is most convienent, or is absolutely inevitable. But he who pleads the wants of his family as an excuse for withholding payment of his honest dues, is just as truly and irretrievably a knave, as he who forcibly seizes possession of an eligible house, and lives rent-free for years.

"No matter how great sacrifices may be required by a compliance with the letter of his obligations; not only would nine-tenths of the losses that now result from commercial revulsions, bankruptcy, and extravagance, be avoided, if every man would make it a part of his acknowledged code of honor to pay every debt at the precise time agreed, but he would be doubly rewarded in the increased consideration, respect, and credit, to which such conscientiousness and integrity would entitle him. The poorest punctual man, whose word may be relied on, is with justice held in better credit than a long-winded, procrastinating Crœsus.

In fact, a young man who enters into business with a determination, from which he never swerves, to discharge every liability at the exact day and hour, will in ninety-nine cases out of a hundred, have acquired an independence at thirty, even if he has amassed nothing but a reputation for promptness and integrity.

NAVIGATION OF THE POLAR SEA.

At a session of the American Association for the Advancement of Science, in Baltimore, in June last, Dr. Isaac I. Hayes, Surgeon of Dr. Kane's last Arctic exploring party, read a paper upon the propriety of continuing the explorations. He thought that the northern limit of land, with the exception of Greenland and Grinnell, had been definitely determined, and doubted the Russian theory that a large continent lies north of Asia. Four attempts at exploration with sledges have been made by the Russians in 1810 and 1822, to look for the Northern continent; by Perry, in 1827, to reach the north pole, and by Dr. Kane, in 1854, to find an open polar sea. The highest latitude was attained by William Morton and an Esquimaux attached to Dr. Kane's expedition, who found a channel of open water between 80° 25′ and 81° 30′, and from an elevation of 300 feet at the latter point looked upon miles of solid ice. The fact of water within the icy limit is thus established, but not decisively a polar sea.

There are other evidences, however, of such a sea. Morton found many aquatic birds which get their food from the sea. An open sea would have a milder temperature than the icy limit, but the isothermal currents fix the point of greatest cold several degrees below the pole. The traditions of the Esquimaux make the north their place of origin, and the remains of colonies are found between 77° and 81°. As we advance southward this race deteriorates, and if they ever inhabited land north of Smith's Straits, there is open water there, for the Esquimaux get their living from the sea. Again, the summer winds from the north, in that latitude, are often warm, and mist clouds are often seen in the northern horizon. The fact of a deep sea current towards the north is also established, in various ways. Facts seem to combine to show the existence of a force or agency, constantly operating to keep the waters of the Polar Sea above the freezing point, which, aided by the wind and other causes, keeps it constantly open.

The most practicable route to be followed to reach this sea, in the opinion of Dr. Hayes, is through Davis' Strait, Baffin's Bay, Smith's Strait, and Kennedy's Channel. He saw no insurmountable obstacle to the successful exploration of this sea, and urged the attention of the association to the subject. The experience of previous expeditions will conduce to its success. A vessel of 100 tons, manned with twelve men, and provisions for two and-a-half years, with perhaps a small steam tender, would be sufficient equipment. The expedition should leave America early in April, should stop at the Danish trading posts in Greenland to secure supplies; should pass the winter at some harbor in Grinnell Land if possible, probably near the parallel of 80°. Early in the following spring the shores of Grinnell Land should be stored with provisions as far north as 82°. A boat's crew should start in April, and would probably meet open water by the middle of June. Dr. Hayes explained the advantages to science to be derived from the success of such an expedition, and announced that he is now endeavoring to organize one. He said that while our flag is carried to the remote heights

of the Rocky Mountains, the Andes, and the Cordilleras, we should not forget that it now floats upon the northernmost point of land yet discovered, and demands further investigation in the same direction.

THE PACIFIC OCEAN.

A California paper remarks that it is astonishing how little is absolutely known about the navigation of the Pacific Ocean as compared with that of the Atlantic. Every little while we receive news of the discoveries of islands having been made, that are not laid down in any chart. The ship Frigate Bird, arrived from Hong Kong, July 4th, reports having fallen in with a group of rocky islets, not laid down on the charts. The report says:—"Went north as far as latitude 45° 17′; June 3d., at 4 P. M., made a group of rocks bearing south, distant six miles, sea breaking very high around them; some of them were even with the surface, and some forty or fifty feet high; they appeared to extend east and west about a mile; they lay in latitude 31° 50′ N., longitude 140° E., and are not down on my chart; after running E. N. E. thirty miles, made South Islands, bearing N. N. W.. distant thirty-five miles, which made these rocks bearing from South Islands S. by W. half W., distant seventy miles." It will also be remembered that guano islands of considerable extent were discovered little more than a year ago to the northwest of the Sandwich Islands.

PINS AND NEEDLES.

The manufacture of the indispensable little pin was commenced in the United States between 1812 and 1820, since which time the business has extended greatly, and several patents for the manufacture of pins have been taken out. The manufacture in England and other parts of Europe is conducted upon improvements made here. Notwithstanding the extent of our own production, the United States imported in 1856 pins to the value of $40.255, while in the same year there were imported into this country needles to the amount of $246,060. Needles were first made in England in the time of "bloody Mary," by a negro from Spain, but as he would not impart his secret, it was lost at his death, and not recovered again until 1566, in the reign of Queen Elizabeth, when a German taught the art to the English, who have since brought it to the greatest perfection. The construction of a needle requires about one hundred and twenty operations, but they are rapidly and uninterruptedly successive.

PUSSY ON SHIPBOARD.

Two years and a half ago one of our citizens, to oblige a friend, the captain of a ship about to sail for the East Indies, gave him a cat for the purpose of keeping the vermin on board in proper subjection. Pussy, during the intervening time, voyaged to Calcutta, thence to Liverpool, back to Bombay, thence to Charleston, South Carolina, and finally to Boston. A few days after the arrival of the ship at this port, the former owners of the cat were sitting at breakfast, when in walked tabby, the same as if she had never been away from home, and after a general review of the premises she came and jumped on the knee of the master of the household, as had been her wont in old times. The story is a curious evidence of attachment to locality in the animal, and a singular proof of its retention of memory.

VALUE OF SLAVE LABOR.

The value of slave labor in the South—particularly upon the sugar plantations of Louisiana—is well illustrated in a recent article in the New Orleans *Picayune*. That journal gives some interesting statistics concerning the Parish of St. Mary's, in Louisiana, which show not only an extraordinary productiveness of soil, but perhaps a larger net return from the labor of slaves than can be found in any other portion of the Southern country. The Parish of St. Mary's is situated in the swamp district of Louisiana, immediately upon the gulf coast. To enable our agricultural friends to make a comparison of the value of slave labor in Louisiana and Virginia, we subjoin the interesting figures of the *Picayune*:—

The population of St. Mary's, by these assessment rolls, consists of 4,021 whites of all ages and sexes, and 12,019 slaves. We do not see the number of free negroes stated, but by the census, five years ago, they numbered 585.

The slave property is assessed at $6,433,250, averaging $535 25 as the value of each slave, and about $1,600 a head of slave property for every white man, woman, and child in the parish.

The total assessed valuation of all the taxable property in the parish is $13,978,169, or within a trifle of $3,500 a head for every white inhabitant.

The number of plantations in the parish is 171, and the number of acres cultivated and in swamp lands is 279,547, of which the assessed value is $5,948,100.

It is difficult to state from this with accuracy the average value of the cultivated land, which is returned at 59,326 acres. The estimate in the register takes $5 per acre as the value of the swamp lands, and deducts from the aggregate the estimated value of the town lots and buildings in the towns at $610,000. The average deduced from all the circumstances is, that the cultivated land in St. Mary's is to be valued at $65 62 per acre—an estimate which the writer himself is startled with, but he can only amend it by estimating some of the uncultivated land at more than $5 an acre, or in supposing the number of cultivated acres understated. The figures will bear no other alteration, and they show, at all events, an extraordinary state of prosperity.

The products of these 171 plantations for the year ending with the crops of 1857, are estimated by the prices furnished in New Orleans, viz., sugar at $55 net per hogshead, molasses at 6¼ net, corn at 70 cents, and cotton at $40 per bale, although only forty bales were raised in the parish.

The total value of the products raised, viz., 31,915 hogsheads of sugar, 41,309 barrels of molasses, 401,600 bushels of corn, and smaller products, is put down at $2,316,553 50. The average production is, therefore, $39 and a small fraction per acre of the cultivated lands. Taking the excess of 2,019 over 10,000, as the estimate of slaves employed other than in agriculture, the production of every slave on the plantation—men, women, and children—exceeded $231 a head; and if we take only the working hands, must be nearly $500 a head. The product of every white person, of every age and sex, averaged $576 a head. The plantations being 171, the average of each plantation was $13,547 09.

These are the gross receipts. The following are the estimates made of the net income. The molasses on plantations is estimated as paying current expenses, and the other products, excepting sugar, as consumed on the place. The sugar, therefore, is net profit. This amounted to $1,755,325. Each slave, therefore, netted his master $175 a year, or nearly 33 per cent on his assessed value.

The summing up is as follows:—The 171 plantations have an average value each of $72,188, an average net income of $10,265. There are 970 voters in the parish, and it follows that if it were equally divided among the white population, each would receive $3,407 82; if shared among the 970 voters, each would receive $14,410 48; if shared among the whole population, including whites, negroes, and Indians, there would be for each $839 88.

The total number of slaves being 12,019, there are three to each white in the parish, over twelve to each voter, and over seventy to each plantation.

ORIGIN OF BRANDY.

Brandy began to be distilled in France about the year 1313, but it was prepared only as a medicine, and was considered as possessing such marvellous strengthening and sanitary powers that the physicians named it "the water of life," (*l'eau de vie.*) a name it still retains, though now rendered, by excessive potations, one of life's most powerful and prevalent destroyers. Raymond Lully, a disciple of Arnold de Villa Nova, considered this admirable essence of wine to be an emanation from the Divinity, and that it was intended to re-animate and prolong the life of man. He even thought that this discovery indicated that the time had arrived for the consummation of all things—the end of the world. Before the means of determining the true quantity of alcohol in spirits were known, the dealers were in the habit of employing a very rude method of forming a notion of the strength. A given quantity of the spirits was poured upon a quantity of gunpowder in a dish, and set on fire. If at the end of the combustion the gunpowder continued dry enough it exploded, but if it had been wetted by the water in the spirits, the flame of the alcohol went out without setting the powder on fire. This was called the proof. Spirits which kindled gunpowder were said to be above proof.

From the origin of the term "proof," it is obvious that its meaning must at first have been very indefinite. It could serve only to point out those spirits which are too weak to kindle gunpowder, but could not give any information respecting the relative strength of those spirits which were above proof. Even the strength of proof was not fixed, because it was influenced by the quantity of spirits employed—a small quantity of weaker spirit might be made to kindle gunpowder, while a greater quantity of a stronger might fail. Clarke, in his hydrometer, which was invented about the year 1730, fixed the strength of proof spirits on the stem at the specific gravity of 0.920, at the temperature of 60°. This is the strength at which proof spirits is fixed in Great Britain by act of Parliament, and at this strength it is no more than a mixture of 49 pounds of pure alcohol with 51 pounds of water. Brandy, rum, gin, and whisky, contain similar proportions.

SHALL WE GIVE OR ASK CREDIT?

It is convenient, and under the existing condition of the commercial world, it is not far from necessary. That it *might* be different by "mutual consent," is a question to be decided. Who would it build up, who would it pull down? Farmer G. of our acquaintance owned a fine farm of two hundred acres. He was an enterprising, go-ahead farmer, and a proud one. He was fond of "creating sensations" among his neighbors—wanted to be looked up to—was happiest when surrounded by a half score of well-fed men, ready to do his bidding as their employer. Farmer G. could do up farm labor on a large scale, but could not descend to details. His teams could "put in" large fields of grain, and do it after the stereotyped manner of his ancestors. His "force" could harvest those fields in autumn, and garner the sheaves. His manure heaps were made to cover his soil without any regard to adaptation, the main object being to "get it out." If the crop was "short" he was "out of pocket," and charged it to the weather; never to the soil, or its culture. Had the soil, on which he depended to pay his bills and help, neither of which were small in the aggregate, been never-failing in fertility, he might have survived all other relapses. He gave and received credit. In both he was indiscreet and unwise. Why? He credited his soil with too much ability to pay his demand upon it. He *asked* credit largely *because* he credited in this manner. He based his supposed ability to pay upon the supposed ability of his soil to pay, or rather give, him its wealth undiminished. He asked accommodation and got it. He drew checks on his farm which were not paid, because no *deposits* had been made. Yet he was regarded prosperous. His *note* was good, and received when crops failed. How easy to glide *down* hill, unconscious of the rapidity with which we move! The credit system is a hill well glazed with glittering ice. The sled we ride is our own good credit, finely shod. We are on it to coast. Here we are at the top—we start slowly, but the mo-

mentum grows greater, and away we go. We are confident of our power to guide it, and regulate its speed. We grow more fearless, and soon find ourselves at the bottom—perhaps have approached ere we are aware a rock, or root, were thrown out, and the sled we rode smashed—irreparably broken. We have a new sled to build, our own bruses to recover from, and then clamber to the top of the hill ere we may ride again.

Farmer G. *was* at the top of the hill, *had* a good sled of his own building, and was in for a ride. He did ride—rode to the *bottom*—unobstructed was his ride, hence the more badly was his sled broken, and the worse were his bruises. "I've learned something I tell *you*," said he to us after he had sold half his farm to pay his debts, and mortgaged the other half for money to build with, (having no buildings on the half retained.) "*Now*," said he, "when I buy a thing I shall pay for it. No man can credit me with even a paper of needles. What I am not able to pay for I *am* able to do without." He learned this lesson at fifty years of age. Ten years subsequent he had as much land as he owned originally, *paid for*, and well stocked, beside being in much better culture than ever the old one was. *Necessity* stimulated effort, and "the most was made of everything." At this writing, he is a hale, happy, hearty farmer of seventy years, and owes not a dollar. Ask him for advice, if you are a young man, he will answer briefly, "go to work, and neither ask or give credit." He does not practice strictly what he preaches about giving credit, but he gives less, yet *sells* more than his neighbors.

RAISING SUNKEN VESSELS.

Among the various devices for raising sunken vessels which have been brought forward lately, that involving the application of lifting tanks, according to the method adopted by Captain Bell, certainly possesses some unique features. The apparatus consists of two separate water and air tight tanks, with straight or square sides, each having on its outer side the form of an acute angle; while the inner surface resembles an arch, which would best compare with a narrow breast-hook timber of a vessel. They are four feet six inches deep by five feet six inches wide, the whole length being fifty-seven feet, with forty-five feet from the span of the arch to the ends, and eighteen feet wide across the crotch. A bulkhead, also water and air tight, is placed through the crotch, dividing the tank into three separate chambers, with a valve under each to admit and let out the water. The valves are opened simultaneously by a lever attached to them all, and, by letting go the lever, are closed by the pressure of the water. The tanks are attached one to the bow, and the other to the stern of the sunken vessel, each one receiving so much of the vessel within its arch. A sufficient weight is applied to submerge them when filled with water, and when made fast to a vessel or any sunken body, the water within them is expelled by the force of air on its surface, which is to be applied by means of a pump, and which then give to the tanks their lifting power. This arrangement is both ingenious and practicable.

TANNERIES.

According to official statistics there are 6,263 tanneries in the United States, of which the South has about one-third. Pennsylvania alone has nearly one-sixth part of the whole number, or 1,039. The Southern States rank in the following order:—Tennessee has 394, Virginia, 341; Kentucky, 275; North Carolina, 151; Alabama, 149; Missouri, 148; Georgia, 140; Maryland, 116; Mississippi, 92; South Carolina, 91; Arkansas, 51; and the other Southern States a less number each. The entire capital invested in all the tanneries in the land is $18,900,557, the number of skins in them being 2,658,065, and the number of sides of leather counting up 12,257,940.

THE BOOK TRADE.

1.—*Abridgment of the Debates of Congress*, from 1789 to 1856. By THOMAS H. BENTON, author of "Thirty Years' View." Vol. VIII. 8vo., pp. 757. New York: D. Appleton & Co.

The eighth volume of this noble work is now given to the press and the public, embracing the period from April, 1824, to the termination of the eighteenth Congress, March, 1826. It covers the period of John Quincy Adams' administration, and many of its debates are of an important character, containing several of John Randolph's most noted speeches, as well as Colonel Benton's celebrated speech before the United States Senate on the appointment of representatives to the Diplomatic Congress at Panama, and many questions of international law regarding the position this country should assume with respect to other States and nations on this continent. The Diplomatic Congress at Panama, it will be remembered, was a call from the confederated republics of South America for a general assembly of the representatives of free American States to convene at Panama, having for its ostensible object the formation of a league which would unite in a closer bond of union all the different republics, but in reality it was nothing more or less than a grand scheme of the liberator Bolivar to enlist the growing power of this country in the cause of Colombia and other South American States, in enabling them to make a more successful stand against their common enemy, old Spain. The question, involving as it did the neutrality laws of nations, at a time when party spirit was rampant, elicited in its cause the greatest minds of the nation, and the debate must always retain a permanent value from the ability which it developed, as well as the views of national policy which it opened. True, the questions that arise from the intercourse of the United States with the Spanish American States present themselves at this day in a somewhat different light from the above period, circumstances having so greatly changed; but, as some one has said, "right views of the present come from knowledge and consideration of the past," and hence they should have great weight in pointing out the true position of this country in its dealings with our South American neighbors. The statesmen who participated in these events, and who have established for themselves an undying fame, have now nearly all passed away, and there now remains but this record of the olden time, so big with the destinies of nations.

2.—*American Biographical Series.* Numbers 1, 2, and 3. Comprising the Lives of Captain John Smith, General Israel Putnam, and Benedict Arnold. By GEORGE CANNING HILL. Three volumes. 12mo., pp. 286, 270, 295. Boston: E. O. Libby & Co.

This new biographical series, which will comprise some ten volumes, has been designed by the author to furnish the youth of our day with an attractive collection, embracing the lives of a few of the most heroic and manly characters who have made their deep and lasting mark upon the minds of the American people. It is by such simple narratives as these that the characters of those who have vividly impressed the times in which they lived, and shaped the mould of great events, are, perhaps, revealed by minute details and personal sketches far more clearly than by the more dignified and historic narrative, and so far the author has succeeded in presenting to the youthful vision fresh, living pictures, which must prove highly palatable to the taste of an intelligent boy, filled as they are with the spirit of heroic adventure, while, at the same time, they possess the additional charm of historical truth. A parent can scarcely do better than to put into the hands of his children such attractive biographies as these, and we congratulate both the author and the publishers upon the well-merited success with which they have been thus far received.

3.—*History of Civilization in England.* By HENRY THOMAS BUCKLE. From the second London edition. To which is added an alphabetical index. Vol. I. 8vo., pp. 677. New York: D. Appleton & Co.

The large field covered by political economy has for long occupied the best minds of every country; but so varied are the opinions in regard to this speculative science, without it be those great fundamental principles of morality of which all moral systems are composed—to do good to others, to love your neighbor as yourself, etc.—that with each successive generation, the opinions once popular in every nation, as to those laws which should govern mankind, are displaced by some new theory, and what at one period is denounced as a paradox, or heresy, at another we are found hugging to our bosoms as sound, sober truth, only, in its turn, to be replaced by some new novelty. Mr. Buckle, in dealing with his subject, the progressive civilization of old England, cannot be considered a treatise on political economy, although in an investigation of this kind there is much analogy, entering so largely as he does into the different elements and progress of society, including in his scope the whole world, and at different epochs, when every man was either a tyrant or slave, to that period when mankind began to be imbued with a sense of their own rights, and to receive the image and superscription of freedom, which remained for America to warm into life, by declaring to the world, in words that can never die, that the true object for the institution of all governments should be to secure the rights of the people, and that from the people alone it derives its powers, and "that whenever any form of government becomes destructive of these ends, it is the right of the people to alter or abolish it, and to institute a new government, laying its foundations on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness." Mr. Buckle treats his subject in the most able manner, displaying a highly cultivated mind, and a closeness of reasoning deserving of the highest praise. Indeed, it is long since we have seen a work, judging from the first volume, which gives tokens of so much promise. It is an English book, but in its reprint here, loses none of those nice points in "getting-up," characteristic of English works, at the hands of those enterprising publishers, Messrs. D. Appleton & Co.

4.—*The Two Sisters.* By Mrs. EMMA D. E. N. SOUTHWORTH, author of the "Lost Heiress," "Missing Bride," "Wife's Victory," "Curse of Clifton," etc. 12mo., pp. 497. Philadelphia: T. B. Peterson & Brother.

Mrs. Southworth is one of the very few American women who have gained an individuality among our female fiction writers. We have had, and have now, many women of decided talent, but the number of those whose force of conception, knowledge of human nature, and powers of delineation fit them to grapple with works of this sort, is comparatively few. She has now given to the public another of her entertaining stories in the "Two Sisters," which will be found full of live characters, warm and brilliant in invention, and abounding in that deep thought and rich pathos which lends a charm to all her pen-paintings, and is a work which all may read with profit. Messrs. T. B. Peterson & Brother have recently published a complete and uniform edition of all Mrs. Southworth's works, which will be sent to any place in the United States on application.

5.—*Men and Things;* or Short Essays on Various Subjects. By JAMES L. BAKER. 12mo., pp. 287. Boston: Crosby, Nichols & Co.

The most of these essays originally appeared in a daily paper, but the notice which they attracted at the time has induced the author to give them a more permanent form than that afforded by the columns of a newspaper, and we have the neat volume before us. They embody much thought, showing the author to be a profound thinker, as well as a good common-sense reasoner, and many of the suggestions herein contained will be found eminently calculated to quicken the mind of the general reader, if not furnish a few texts from which profitable sermons may be preached. We see but one fault with them, and that is, we think, they are too brief, when we consider the importance of the various subjects treated on, and the material they must afford to a thinking mind like that of Mr. Baker's.

6.—*The Age;* a Colloquial Satire. By PHILIP JAMES BAILEY, author of "Festus." 12mo., pp. 208. Boston: Ticknor & Field.

We have neither had the patience nor the time to wade through this satirical production of Mr. Bailey's, and are, therefore, not well qualified to say much concerning it, more than that his shafts seem directed, pretty generally, at humanity, occupying nearly every estate of human life. But we opine Mr. Bailey has found it as hard to satirize well a man of distinguished vices, as to praise well a man of distinguished virtues. For instance, the critics, those lampooners, of whom he says—

"Writers in whose narrow views
All high is false, all low life only true;
Who own no taste as sound, nor purpose valid,
But what concerns the vile, or paints the squalid;
Profoundest sciolists, who proclaim with gravity,
That human nature simply means depravity.
Critics, whose lucubrations feast our eyes
In journals of the most portentious size;
Who, ignorant of all but native graces,
Like leopards lick and paw each other's faces."

These are parlous words, Mr. Dissectors, and we advise you to take a back seat forthwith, for he is evidently after you with a sharp quill.

7.—*Shamah in Pursuit of Freedom;* or, the Branded Hand. Translated from the original Showiah by an American citizen. 12mo., pp. 600. New York: Thatcher & Hutchinson.

This narrative appears to be a series of letters by the chief of a tribe of Kabyles, who inhabit the high regions among the mountains of Algiers, addressed to his brother, while on a tour of travel and adventure in the United States. The translator says of this people, that morally and physically speaking, the Kabyles are among the noblest in the world, imbued as they are with a passionate love of liberty, which, though often assailed, has never yet been overthrown by any neighboring power; and of Shamah himself, that he is a self-made man, opening rare and profound depths of thought, and sometimes even disturbing deep fountains of wisdom, with no other guide than the few books that come in his way to direct him. For ourselves, we can discover no such high attributes in the chevalier, more than a somewhat musical flow of language, mixed up with a great deal of unreal and high-wrought sentiment, which would go to proclaim Shamah rather a clever Lothario than a practical philosopher, who views things in the true light in which he finds them.

8.—*Courtship and Matrimony:* with other Sketches from Scenes and Experiences in Social Life, particularly adapted to Every-day Reading. By ROBERT MORRIS. 12mo., pp. 508. Philadelphia: T. B. Peterson & Brother.

We have been most agreeably disappointed in our examination of this book, supposing, from its title, it to be one of the many ephemeral publications that have become so common on this and kindred subjects, whose wretched sophistry is fruitful of the most pernicious influences; but, on the contrary, we find it as far from fraud as heaven is from earth, wrought in gold, breathing forth a spirit of clear, common sense, and presenting life in its purest and most practical aspects. It is in every respect a family book—one intended for every-day reading—one which no family, especially those who have children growing up around them, should be without—and one which cannot be perused without inspiring more or less good feeling and sensible reflection in the minds of all who look into it.

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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

NOVEMBER, 1858.

Art. I.—CONSIDERATIONS IN REGARD TO STEAM ON THE ERIE CANAL.

THE STATE POLICY—WHY STEAM HAS BEEN IGNORED SO LONG—THE LARGE, FULL, DUCK-BREASTED BOW, WITH THE DIMINUTIVE PROPELLER-BLADES, IS AS UNFIT FOR MARINE LOCOMOTION AS THE DOG IS FOR SWIMMING—THE INCREASED DUTY OF A PROPER MECHANICAL SYSTEM OF PROPULSION—WE NEED TO KNOW THE WANT OF MECHANICAL FITNESS—THE FULL EFFICIENCY OF THE SMALL QUANTITY OF POWER BY HORSE—A GIVEN QUANTITY OF POWER BY HORSE COSTS MANY TIMES THE SAME QUANTITY BY STEAM—THE CHIEF OF THE POWER OF THE STEAM IS NOW ANTI-MECHANICALLY WASTED—THE GREAT REQUIREMENT FOR CANAL PROPULSION—SYSTEM REQUIRED FOR CANAL TRANSPORTATION—THREE CLASSES—FIRST AND SECOND CLASSES MUST HAVE BUILDS BETTER CONSTRUCTED FOR SPEED—RELATIVE MOVING POWERS AT DIFFERENT SPEEDS—STEAM IS A FINANCIAL NECESSITY TO THE STATE—LIMITATION IN LIVING ABILITY OF NEW YORK CENTRAL RAILROAD TO CARRY FREIGHT—HYPOTHESIS UPON WHICH THE STEAM SYSTEM IS CLASSIFIED—THE SUCCESS BY CANAL STEAMERS IS THUS FAR UNDER THE UTILIZED POWER OF ONE-FOURTH TO ONE-THIRD OF THE STEAM—INFIDELITY AS TO THE PRIMARY STEPS OF TRUE PROGRESS—ESTIMATE OF PROFITS ON THE BASIS OF FLOUR BY STEAM AT PRICES BELOW THE LIVING ABILITY OF RAILWAYS—RELATIVE PROFITS BY HORSE AND STEAM—THE HYPOTHETICAL INCOMPLETENESS DOES NOT INVALIDATE ITS RELIABILITY—STEAM CAN ACCOMPLISH WHAT IS HERE SET FORTH.

THE most immediately important subject touching the great internal commercial interests of this State, as the gateway between the Atlantic and the Northwestern Lakes, has been presented to the public by recently occurring events in the trials of steam upon the canal, and which is an initiatory step of commanding importance, more by virtue of drawing attention to the subject, which attention will carry it forward to success, than by virtue of the actual attainments yet made by the trials by steam, which trials are more valuable for showing what they cannot do, than for showing what they have done or can do.

It is one of the singular events of commercial history that the great outlet of the commerce of the Northwestern Lakes has withstood the progress of steam, and forbade it its waters so long, and that capitalists and the State have enjoyed the advantages of steam on all other thoroughfares, than upon that one which alone floats more freight between tide-water and the "great water-shed" of the Northwest than all other

State resources by far; and than upon that one which alone could hold its being with a breath of vitality, drawing such breath by the slow, costly, incompetent, and inefficient tread of the horse and the mule, as day and night they have these long years, outnumbering a generation of commercial men, toiled to bring to this city its life-giving necessities, and the chief support of its immense commerce.

It is the more strange that steam has been ignored for the canal, because of its universal notoriety for cheapness of motive power, the economy of which, in such of the useful arts as have used it under the most perfect mechanical development, for a single one hundred pounds of coal, has done the equivalent work of ten horses for eight consecutive hours. The costs are, therefore, as 100 pounds of coal to the keeping of 10 horses per day.

The State policy of the past is now written stupid and shortsighted for incompetency to put steam successfully upon the canal, and for suffering steam overland—by virtue of steam over horse and mule power—to encroach upon the rights of the canal, by bringing from the lakes in years just passed, as regards shipments from Buffalo, nineteen-twentieths of the flour, and to soon claim wheat and corn also by scores of millions of bushels. But the canal has a birthright inheritance which should not be slothfully and shamefully sacrificed by the State to foster the prejudices due to the favor of some ten thousand horses and mules, instead of superseding them by some two thousand engines, which can do from 50 to 100 per cent more work, at less than present cost, and in much less time of transit. The encroachments by the several competing routes to the Atlantic having already compelled large reduction in rates of toll per ton, in order to save to the canal, by thus soliciting freight, a living revenue, are also dictating terms to the State and canal interests generally, in regard to the great carrying trade of the West.

These facts, with the recent enthusiasm properly engendered by the instructive tendencies of the few canal steamers, coupled with the fact that the railways are now carrying large quantities of freight at prices per ton considerably below the amount charged in their reports for three years past to their expense account for freight, call loudly upon those who will nurture and sustain the immense constructive expenditure by the State, and its increasing liability for its enlargement, to control the present and the increasing demands of the inter-commerce of the West and the Atlantic, by the proper substitution of the economy of steam for the expensive motor now used.

The true cause why steam has been ignored so long, is because the mechanical means of applying it has not been such as to bring out and establish its true and highest economy; for the common paddle-wheel, whether upon the sides or at the stern, or screw propeller, has not been so constructed—and because they are, neither of them, adapted to such construction—as to give an area of retrograde action upon the water nearly approximating to a sufficiency for a fulcrum from which to move the boat—the full duck-breasted bows of a canal-boat, five feet or more under water, requires a large and adequate fulcrum action upon the water, in order to cause the bow displacement.

It is not far from a correct, common-sense view of the case, *to look at the submerged bow of a full loaded boat, and then at the diminutive blades of the screw of the Cathcart or those of the Sternberg*, and say, what can-

not be evaded by science and fact, that she is but little better adapted, mechanically, to locomotion than a dog is to swimming; and therefore, though she has a superabundance of the power of steam, she may puff away and expend her power, just as the dog will work hard, pant, and tire at a slow swim, because he has no fulcrum for his locomotion. When upon land he can do with ease at a few jumps more than he can do with long minutes of hard struggling in the water.

The want of mechanical adaptation to marine propulsion by paddle-wheels or screws upon ships or river steamers, is treated of, somewhat at length, in the September number of *Hunt's Merchants' Magazine;* and the principles and laws there examined are forcibly applicable to the want of adaptation to the canal.

With a small engine, the full sized boat for the canal will have the motive power relatively equal to that of the dog, and like him she will have little utilized in her propulsion; but if by the new system, the "outlines" of which are so briefly given in the article referred to, *she can be provided with a fulcrum such as she needs, and such as she must have to be properly useful*, then she will have the perfect control of a single full loaded boat at six miles per hour, at half the towing cost per horse power; or of another in tow at four miles, at three-eighths the towing cost per horse at horse rate; or of two or more in tow at two or three miles per hour, at 30 per cent of the cost now submitted to.

The chief washing of banks by a screw steamer, will be by the swell raised by her bows, as she forces the water forward of and latterally therefrom, whilst the radial rotation of the screw leaves the water acted upon by it in a screw-like rotatory commotion, which, commingling with the replacement current, will not injure the banks. The Sternberg leaves two screw-like currents, turning inwardly from the banks, as "right and left" screws to the boat. The Lone Star, so far as her description has been published, will throw the water acted upon by her respective wheels so as to face the replacement current, and with a tendency to lessen it.

Mr. Norcross, in the Syracuse *Journal*, makes the cost of a ten-horse engine by estimate 6¾ cents per mile at three miles per hour, but this is at a much lower cost than the published statements by the Sternberg and Wack show in practice. The uncertainty in the use of steam is not in its economy of motive power, for a *given quantity of power* generated by the combustion of a ton of coal costs comparatively very little to *the same quantity of power* generated from hay and grain through the digestive and muscular functions of the horse; but in the ability to use it without wasting the larger part of it, and the great difficulty to be overcome is, the want of mechanical competency to impart the motive power to the movement of the boat, instead of wastefully expending from two-thirds to three-fourths of the power, in order to impart the residue to the movement of the boat; the wasted power having *no more resultant effect in the motion of the boat* than if the same amount of steam escaped through the safety-valve.

What we need to know, as practical men of correct knowledge, is, that the Sternberg, which, under high bridges, can carry over two hundred tons fully loaded, is but little better adapted to economize her power than the dog is his in swimming, and that, if she has a quantity of motive power actuating her piston equal to the tow of 50 good horses, her want of mechanicability to transmit the same from the piston to the motion of

the boat is such that she does not exceed in the run of the boat the tow of 12 to 17 horses' power. This is a truth which no mechanic, scientific or practical man, *can disprove*, and it is highly important to know it as a truth, for such knowledge is the corner-stone upon which we shall establish a successful mechanical system, and render horse power as unknown upon the canal as it is upon the railways. To steamers we ordinarily underrate the quantity of motive power existing in the functions of the steam, and we do this the more readily when we cannot, by the unaided observation, trace the developments which are wasted and measure them; yet which, from accurate practical facts, are by scientific analysis as perfectly measured as the quantity which produces the movement of the boat, and is obvious to the eye. The full examination of these expenditures which are wasted, and that which is utilized, cannot here be given, and as the laws and relations, as applicable to steamships, are given somewhat at length in the *Merchants' Magazine*, I may refer to that article for a general examination; but they may be illustrated in part thus:—*To an effective horse-power function upon the piston*, the Sternberg (and I allude to her as a good specimen of the class of propellers) *has not over* 80 *square inches of retrograde fulcrum surface by her propeller blades upon the water;* and when she draws five feet or more, by seventeen feet, she has over 12,000 square inches of displacement by her bows; hence, her retrograde fulcrum action is, by a large disproportion, incompetent to properly develop the power of her steam usefully; and to put a horse power of steam to propel a bold, heavy, resisting volume from a fulcrum of 80 square inches, is as far from common-sense mechanical adaptation as to put nine men to row a boat proportioned to them with a single common-sized oar blade, or as for a single oarsman to row his boat with only one-ninth of an oar blade.

How different with the horse upon the tow-path! He has, in dry weather, a perfect fulcrum for locomotion, and his power acts upon the boat in the best possible direction—qualified by the slight obliquity of the tow-line and the consequent slight obliquity of the rudder—for boatmen understand that they must throw the stern towards the tow-path a little in excess of the tendency of the bow-line, as in navigating the canal the bow is the pivot around which the rudder throws the stern to right or left to give new direction to the bow.

It is true to the nature of the case that we cannot anticipate developing the power of the steam with near the mechanical perfection that we can the power of the horse, but the cost of the power of a horse is so many times greater than the cost of the same quantity of power of steam, that even though we waste considerable in mechanically imparting it to the movement of the boat, we may yet have a large economy in favor of steam.

That these considerations may not be misconstrued, I state briefly—

1st. That a given quantity of motive power derived from horses and mules costs many times more than the same quantity of motive power generated by fuel in steam.

2d. That the power of the steam, under the present means of mechanically developing it, as by the wheels or propellers upon the canal, is wasted in extravagantly large quantities; and that to the Cathcart, Sternberg, Wack, or Lone Star, not less than two-thirds, and varying from two-thirds to three-fourths, of their motive power is absolutely wasted, so

that it has no resultant effect whatever in the motion of the boat. This is wasted just as the power of a pair of horses is wasted, which, when hitched before the stage, can take only twelve to eighteen passengers from the Astor House to the Crystal Palace with a given ease and speed, but hitched before the car they can take the heavier car and three or four times as many passengers with the same ease and speed. Thus, the difference in the loads moved is the difference in the mechanical developments of the same quantity of power by the same horses in the same time, so that, just as in the steamer, this difference wasted has no effect in the motion or transit of the load, it being the residuary or mechanical resultant of the power that effects the horizontal motion; and the difference arises from the want of mechanical adaptation in the pavement as compared to the mechanical adaptation of the rails.

3d. The development of the power of the horses in towing is as perfect as it is practical to attain.

4th. That when the power of the steam shall be mechanically developed, with but a partial waste of power—there being necessarily some waste to locomotion from a yielding fulcrum like water—it will cost but a small part of the present expense of towing.

5th. The great requirement for canal propulsion is a mechanical means by which to avoid—to as large a degree as practicable—the present wasteful expenditures. Such means should be sought for, because, when found and substituted for the present mechanism, it constitutes just such an advance in the useful arts as has ever met the necessities and produced the progressive eras of the past.

In an article on "Marine Steam Propulsion," (*Merchants' Magazine* for September,) "*three essential features of mechanical adaptation to propulsion*" are given, as—

1st. "Direct action of the motive power perpendicular to the lever of transmission."

2d. "An adequate resisting surface in immersed action upon the water as a fulcrum of propulsion."

3d. "Action upon the water in a retrograde direction parallel to the run of the boat, and upon the vessel in the line of its direction."

But neither of these three *essential* features exist to the Fultonian System or to the screw propellers, as both these systems embody *every possible obliquity to the crank twice per stroke of piston*—as if the pull of a rowman acted through a semi-circle of 180°, instead of its arc of about 60°, or 30° each side of perpendicular. Also the immersed areas to side-wheel ships, steamers, and propellers, is notoriously inadequate, producing a very rapid cycloidal slip in the case of steamships, an impulsive, rapid retrograde slip to river steamers, and a very rapid, radial, rotatary slip to the propellers. Also six-sevenths of the action of the "Collins" wheels upon the ships are more or less oblique, and the whole action of the propeller blades is oblique upon the vessel.

The principles, rules, and expenditures pertaining to these three desiderata are given in the magazine article referred to, and also the "outlines of a new system," combining the three essential features of mechanical adaptation as before given; and which are peculiarly well adapted to the towing purposes of the canal, and reliable examinations of which will draw out and induce a more correct knowledge of the true state and relations between steam and horse.

The present conditions of canal transportation, and as related to the other competitive lines for freight, demand a proper system of steam propulsion, such as may be given under three classes.

FIRST CLASS—DISPATCH FREIGHT.

This class should compete with the railways as approximately as it can for the "fast freight," and which for miscellaneous freight is always the highest priced—and by an efficient mechanical system of propulsion, a steamer, with easy bow and stern lines, can freely make six miles per hour on the canal, and eight on river; and by having priority at locks and other places, as the passenger packets used to have, it can make the passages between Buffalo and New York, each way, regularly in four days.

SECOND CLASS—A STEAMER AND FULL FREIGHT BOAT IN TOW.

This class can freely make four miles per hour on canal, and six miles on river, and having priority over third class, can make the passage between Lake Erie and this city (New York) regularly in six days.

THIRD CLASS—A STEAMER WITH TWO OR THREE BOATS IN TOW.

This class can freely run from two to three miles per hour on canal, and four miles per hour on river—and as steam will wholly supersede horse power, this class will be delayed at times by the first and second classes, and will make passages variably from eight to twelve days.

It is a matter of common judgment, that the construction of the bow and stern "lines" of the hull to the first class, or six-mile steamers, should be made easier, and improved from the present "duck-breasted" bows and full sterns, to give them easy and gradual displacement and succession of waters, instead of the large, abrupt, forward movements and stern suction tendencies. The duck-like bow at four miles per hour will wash the banks more than "easy lines" at six miles per hour—and the quantity of power for a duck-bow at six miles per hour over one of easy lines will cost far more than the slight difference of tonnage. The necessity for easy lines in the build, compared to the present common build, increases as the square of the increased velocity shall exceed the square of the horse power speed. Thus, if two horses can take a boat drawing four feet of water two miles per hour, it would take eighteen horses to take the same boat six miles per hour, *with the same ease or intensity of exertion*, ($2^2 : 6^2 : : 2 : 18$,) but as the eighteen will accomplish *the given distance* in one third of the time, they only expend in the aggregate three times the quantity—as the quantity of power to twenty-four miles in twelve hours by two horses is represented by 2×12 or 24, and twenty-four miles in four hours by eighteen horses is represented by 18×4 or 72, or the *rates* are as one is to nine; and the quantities as one is to three. The law of these relations is, that as the boat at six miles per hour has three times the velocity of that at two miles—it strikes three times as many particles of water per minute, and each particle three times as quick, in order to effect its sufficient displacement, and which makes (3×3) nine times the rate; or the resistances are as the squares of the velocities, ($2^2 : 6^2 : : 1 : 9$,) and the powers must, of course, be as the resistances.

But if the bold bow and stern are varied to easy lines, the velocities of displacement and replacement at six miles per hour may not exceed two-thirds these velocities at the same rate per hour when not varied; and in such case eight horses would tow as fast and as easy as eighteen with the

duck bows, as ($1^2 : \frac{3}{4}^2 :: 18 : 8$.) The Canal Board have recently enacted that steamers drawing over four feet of water shall not exceed the rate of five miles per hour, but to a first-class dispatch boat properly built, and so propelled that the fulcrum water will have very little commotion, and less swell at six miles per hour than now at four to five miles, this enactment would be readily amended.

Hence, the class of freight and rate per hour required of the steamer should dictate to practical men the best model for the best economy, and they should bear in mind that the best model for the highest economy, when towed by horse at $1\frac{1}{2}$ to $2\frac{1}{2}$ miles per hour, is not the best model for such economy when towed or propelled at six miles per hour.

The constructive lines for the second class should be a proper mean between the first and third classes, whilst to the third class the existing models may well be used.

Under financial considerations that make this subject an important one on the part of the State, and of her public officers, many facts might be deduced from the annual State reports of highly instructive character; and as the State is responsible, in a profit or loss account, for the good or bad management of the scores of millions herein invested, and as the State has also in her proper liberality granted protected rights to different overland competitors, which are now patronized liberally in the freight department, and which they can compete for and obtain simply and only on the ground that the State is "old fogy" and slow, and will stick to its proclivities for the overloaded horse and its consequent snail-like pace, whilst its competitor's whistle toots in its ears, and is away out of sight by virtue of the cheap and efficient power of steam, and its admirable mechanical adaptation to the rail; it truly becomes the canal officers of the State to know above, and in progress beyond, former prejudices and deceptive opinions and experiences, the reason why steam has been ignored so long from this great State institution. And the State should profit by trials at different times in the past, which have taught with unexampled plainness how they can waste, in the most prodigal manner, the power of the steam, and that the mechanical means, by which it has been done, *is not the means by which they are to rise above all former objections*, and superior to their competitors by railways, and by which they are to be competent to meet the full demands of the public, both as to expedition, regularity, and certainty of transit; and at so low rates, with profitable margins, as that the railways and other routes cannot infringe upon the rightful jurisdiction of this enlarged work, to that mass of all the products of the West which may naturally centralize to this great channel. To the recent enthusiasm engendered by the enterprise of a few parties who have broken loose from the stereotyped practices and thoughts of the past, and have caused in this short time some several different mechanical means of using the power to be applied, or which are in process of application, for early trials, credit is due: and to the most meritorious, or to such as shall, *in the best practical manner, use the power of the steam*, all encouragement should be given.

Upon the railways there are preferred classes of freight, and to all freight there are many consequent delays, as at turnouts in subjection to passenger trains and necessary conditions of time tables; hence, to their freight that is not perishable, express, or carried with preferred dispatch, they cannot add any important advantages over four-day trips by dispatch steamers.

It should be borne in mind that the railways are "up to time" under

the shrewdest competitive management, whilst the canal managers and forwarders have stuck like leeches to the tow-path, until they have sucked the financial blood from this great artery, so that she requires powerful stimulants in loans to reinvigorate her; hence, it wants an energetic and expeditious policy to meet the activities of the railways and redeem her from the sluggish habits of the past.

The New York Central Road carried during the last healthy business season (1856) in tons one mile, the equivalent of 474,700 tons of through freight between Buffalo and Albany, and at an aggregate expense account of $4 29 per ton; and upon that quantity which was through freight she received $8 26 per ton, so that the difference between the expense and receipts were nearly four dollars per ton, of which a considerable part must be required for "permanent repairs" to track, as due to the wear and tear of such freight; hence, the full cost of carrying this freight exceeds $4 29 by a considerable part of the four dollars per ton excess; hence, also, $4 29 *per ton is considerably below her living ability to carry through freight.*

This same road is now bringing flour from Lake Erie to this city at forty-five cents per barrel or $4 21 per ton, shipping by barges on the river, in the average time of about six days; and these rates, irrespective of the river deduction, *is below the actual cash expenses of the same to the road.*

Consequently, if canal forwarders can carry dispatch freight at $4 21 per ton, at present tolls between the lakes and this city, as regularly as the railways can, by four or six day lines, and make large profits, or can carry at still lesser rates and make liberal profits, then, since the railways must and do pay in cash more than such price per ton, besides the wear and tear of track, interest, and depreciation, it is very evident that they must resign competition for the natural flow of freight from the lakes to tide-water on the introduction of a mechanical system adapted to steam locomotion on the canal.

Also, if forwarders can perform this hitherto unknown feat, then they will very largely *increase their capacity of carriage*, for the first class will make two full round trips per month, whilst now they make but one; and the second class will make one-and-a-half round trips per month instead of one trip; the third class taking nearly the same time as now taken; and they will *very largely increase the aggregate income to the State* by virtue of the chief of that freight now diverted to routes north of, parallel with, and south of, it; which will naturally flow to this thoroughfare, except for the slow, tedious, and uncertain horse system; and when the large quantities of freight, now flowing over other artificial channels, shall be as naturally and fixedly turned into this great channel as the rivulets of the valley into their great trunk river, then again the canal fund will fill up and liquidate its present embarrassments, and thus be an independent and enriching tributary to the State.

The considerations given, and the conclusions drawn, bring us to the hypothesis, which is the corner-stone of prosperity to this great public work, viz.:—If forwarders can establish first-class dispatch steamers to make only four days' time, and second class steamers to make only six days' time, and third class steamers to make from eight to twelve days' time, and each class at prices with large margin for profits, and at prices below the possibility of railway competition.

In the preceding remarks and reference to proofs in article in *Merchants' Magazine*, I have shown that the existing mechanical systems *are not well*

adapted to canal propulsion—though I am far from saying that, bad as they are by their prodigal waste of power, they are not far better than the slow tread of the horse, and it is plain that the present experiments can be greatly improved and economized—but as the mechanical designs are radically bad from the ever-varying obliquities of action upon the crank, the diminutive fulcrum surfaces, and the obliquities by the wheels and screw blades, to their diminutive resultant power traceable to the movement of the boat, I can do no greater injustice to individual or public interest than to cloak these truths and encourage these systems *for what they are not*—though they are the best which have been publicly tried, just as the splendid "coach and six" was the best overland source of travel until their superior in the railway was publicly tried, through the perseverance of "Stephenson" against a mountain of prejudices.

The positive knowledge that the canal steamers that have triumphed so as to reach a speed of about four miles per hour, with about half freight under crowded fires and steam, or better if better results have been attained, have done it by virtue of from one-fourth to one-third of their power, is not readily made plain to all, because in the absence of an efficient system already in practice by the effects of which we might judge, we have now to trace the expenditures by scientific analysis from the known facts, and it is difficult to satisfy persons of these truths just as it would have been to have convinced them before the use of rails that only one-third of the draft of the horses before the stage was expended solely in the horizontal movement of the load, but when the natural eye sees that it takes three pairs of horses by stage to take the load of one pair on rails by their side, the judgment is assisted and analysis confirmed.

Also, it may be difficult to satisfy some, who have not confidence in their own analysis to trace inductively the advances of science beyond practice, that any system should utilize from the same quantity of steam from two to three times the useful effect now obtained, and this, too, simply by change of mechanism, though it be just as the useful effect is increased two or three times to a pair of horses when the mechanical rail is substituted for the irregular stone in our avenues.

But this difficulty is the fault of an insufficient conception of truths and not of the thing presented, and the deficiency is in the understanding and not in the thing to be understood.

I am, also, conscious of not doing justice to the full merits of the subject, because the "outlines of a new system," as referred to in the Magazine article, are insufficiently given to illustrate, without drawings or miniature applications by models, the mechanical harmony of adaptation to required duty. But the mechanical design is natural to its purpose, whilst the existing means are anti-mechanical in the extreme, just as a rough pavement is anti-mechanical, whilst the design of the railway is natural to its purpose. I refer to the railway and pavement because *the same elementary laws of science are involved in the oblique actions of the radii of the wheels of the stage to the irregular surface, as are involved in the oblique actions of the steam to the crank, and of the paddle-wheels and propeller-blades to the boat*, and because the obliquities to the crank and boat, and the utterly inadequate fulcrum surfaces, are in no sense either scientific, practical, or economical, one iota better adapted to propulsion upon the canal, than the rough pavements are to propulsion overland.

Again, it is not so important at the introduction of any important reform

to fully present the new system upon which it should be based, however great its superiority of merits, as to break through the infidelity of men to the advances of science, for so long as they possess supreme confidence in the familiar systems of practice that they are the best possible to attain, however deficient in merit, they cannot be impressed with the idea that any other system can possibly possess superior merit. Such infidelity is very common, and it obstinately resisted Watt, Fulton, Stephenson, and Field; and it also took a bold front against the practicability of steam for transatlantic navigation by an eminent committee of the British Parliament, after a series of experiments on the Mediterranean, conducted for the instruction of such committee, and in our own Congress we fell short of unanimity of belief that Professor Morse could do what *he knew he could do*—intercommunicate intelligence between Washington and Baltimore.

It is the more important to break through the Sebastopol walls of scepticism in order that reform may enter, because these fortifications are the rule, and reliable knowledge of the platform of reform is the exception.

For such reasons I present the following statements of what can be done, *reserving to another time* the more full presentation of how it will be done, or of the simple principles of mechanics which must be incorporated into practice in substitution for the present complex, compound, and wasteful developments of power—developments which are now so complicated that a person who *can fully trace them correctly from the piston to their respective ultimate effects* is very seldom to be found, as it requires a research beyond the mechanical authors of the past, and so elementary in character as to correct the errors of the past.

From the forwarders' petition to the Canal Board we are instructed that a first-class boat, fully loaded with flour, can carry upon the enlarged canal 2,320 barrels, or 248 tons, of flour, drawing 6½ feet of water.

The Central Railroad is now bringing flour from Buffalo to New York, by barges from Albany, in the average time of about six days, at 45 cents per barrel, or $4 21 per ton, so that the 2,320 barrels costs the merchant $1,044.

But we have shown from reports of this road that this is below their actual cash expenses pertaining to the freight:—

ESTIMATES OF COSTS BY ENLARGED CANAL.

By horse power we may assume the same per ton to the canal as the railway price, since it is now below their living ability to carry freight; or, 248 tons of flour, at $4 21		$1,044
Cost of same—		
Toll of four mills per ton per mile is $1 41 6 per ton through, and 248 tons is	$351	
Toll on boat	7	
The present price for towing to about 4 feet draft is 20 cents per mile, and to the draft of 6 feet and over it cannot be less than 30 cents, and 364 miles at 30 cents is	109	
Towage on river, at present price	30	
Captain, men, and expenses of boat at $120 per month, the average time of which per trip, covering stay in port, will not be less than 15 days, equal	60	
	—	557
Forwarder's net to down trip		$487

If we estimate to return trip half down trip's gross receipts, we have		$522	
Cost on same—			
Toll on freight, estimated	$150		
Toll on boat	7		
Towage on river	30		
Towage on canal	78		
Captain, men, and expenses, half month	60		
		320	
			202
Forwarder's net to round trip, per month			$689

ESTIMATE BY STEAM WITH THE NEW SYSTEM OF PROPULSION.

First Class.—To make proper dispatch by steam, which shall carry fast and high priced freight, the engine should give six miles per hour on canal and eight miles per hour on river. To do this, the buoyancy surface will be reduced about 8 per cent, or 20 tons on 248 tons, to give space for mechanical movements upon each side of the stern. To weight of competent engine space, fuel, &c., 20 tons, and to easy running lines we may allow 8 tons, or 48 tons in the aggregate to 6¾ feet draft. The above is a large allowance.

Although this class will compete with railways for all fast freight, excepting perishable articles, express freight, and live stock, I may present this estimate on the basis of flour and the losing railway prices. We have, then—

200 tons flour, at $4 21 per ton			$842
Cost of same—			
Toll on 200 tons, at $1 41 6 per ton		$283	
Toll on boat, $7; do. extra for priority, $7		14	
Coal and expenses of engine from Buffalo to New York, in 78 hours running time, or 4 days gross		50	
If we allow 3 days in port, we have 7 days full time, and captain, men, and expenses, as per horse-boat, at $120 per month, 7-30ths of a month		28	
Two engineers, at $30 per month, 7-30ths of a month		14	
			389
Forwarder's net per 7 days			$453
For up freight, this class will not draw from freight now carried by boat, but from that carried by railway at high prices per ton; and as they can carry for two-thirds the railway prices, they may not fail to average in gross receipts per up trip			$600
Cost of same—			
Toll, estimated		$150	
Toll on boat, $7; do. extra, $7		14	
Coal and expenses of engine		50	
Captain, men, and engineers, as to down trip		42	
			256
Forwarder's net to up trip, per 7 days			$344
Forwarder's net to round trip, or 14 days			797
Forwarder's net to two round trips per month			1,594
Forwarder's net excess over horse-boat per month			905

Second Class.—Composed of first class steamer with one full freight boat in tow, with capacity reduced by easy lines from 248 tons to 240 tons. Estimate on the basis of flour, as before, and we have—

Steamer.... 200 tons. Boat in tow. 240 tons. } 440 tons, at $4 21		$1,852
Cost of same—		
Toll on 440 tons, at $1 41 6	$623	
Toll on two boats, $14; do. extra, $14	28	
Coal and expenses of engine at four miles per hour on canal and six miles per hour on river, six days gross time, or 114 hours running time	75	
If we allow for two boats 4 days in port, we have 10 days full time of trip, and captain, men, and expenses at $120 per month each boat, for 10-30ths of a month, is	80	
Two engineers, at $30 each, for 10-30ths of a month	20	
		826
Forwarder's net for two boats, ten days		$1,026
For up freight this class will draw from railways and from best freight now carried by boats; and will probably average to both boats gross receipts.		$1,200
Cost of same—		
Toll, estimated	$300	
Toll on two boats, $14; do. extra, $14	28	
Coal and expense of engine	75	
Captain, men, and expenses, 10 days	80	
Two engineers, 10 days	20	
		503
Forwarder's net for two boats up		$697
Forwarder's net for round trip of 20 days		1,723
Forwarder's net for average of 1½ round trip per month		2,584
Forwarder's net excess over two boats per horse per month		1,206

Third Class.—Composed of a first class steamer and two full freight boats in tow of present maximum tonnage build. This class will carry slow freight, miscellaneous produce, lumber, &c., &c., not in necessity for dispatch; but we may put this class also on the basis of flour, to the better comparison with the first and second classes and with horse power. We have—

One first class steamer of 200 tons and two freights in tow, each 248 tons, or 696 tons, at $4 21		$2,930
Cost on same—		
Toll on 696 tons, at $1 41 6	$985	
Toll on three boats, without priority, as steam will supersede horse, and these will be the slowest craft, excepting rafts	21	
Coal and expenses of engine, at the rate of 2½ miles per hour on canal and 4 miles on river, or 9½ days running time, and 9 or 10 days gross	94	
Captain, men, and expenses, 10 days passages and 5 days in port, or one-half month to each boat	180	
Two engineers, one-half month each	80	
		1,310
Forwarder's net for three boats down, or 15 days		$1,620
For up freight, this class will take same as is now taken, and we take same estimates as per horse power; and we have—three boats, with gross receipts of $522 each		$1,566
Cost of same—		
Toll on each, estimated at $150	$450	
Toll on three boats.	21	
Coal and engine expenses	94	
Captain, men, and engineers, as per down trip	210	
		775
Forwarder's net for three boats up trip		$791
Forwarder's net for round trip of one month		2,411
Excess over three boats per horse power		344

The third-class trips will be made in two days less running time than by horse power to same draft of water.

SUMMARY.

By horse, net per month, 1 boat.....	$639		
By steam, 1st class, per month, 1 boat..	1,594	Excess per boat.....	$905
By horse, per month, 2 boats.....	1,378		
By steam, 2d class, per month, 2 boats..	2,584	Excess, $1,206; per boat....	603
By horse, per month, 3 boats.....	2,067		
By steam, 3d class, per month, 3 boats..	2,411	Excess, $344; per boat....	114

Or the net per boat by horse equals 43 per cent the net by 1st class steamer.
" " " 53 " " 2d "
" " " 86 " " 3d "

It will be observed that the gross receipts to the up freight, to first and second class steamers, is put at $78 excess per boat above receipts per horse-boat, whilst the tolls are given equal; but this does not convey properly the advantages accruing to four and six day passages for up freight, either to the forwarders or to the State, for they can make large profits at half the railway prices on up merchandise, and in such case can command the chief of the up freight, and add its tolls to the exchequer of the State, now unknown there.

The comparison of the respective classes all being based upon flour and tolls at same rates, forwarders and merchants will observe that this statement is not intended as an estimate of charges or of profits—but as an estimate of the capabilities of steam canal transportation compared to railway expenses for freights; and *as an estimate of the relations of steam to horse transit on the enlarged canal, and as an estimate of the respective classes by steam to each other.* Hence, they will observe that it is not material to the object, that the precise difference should be given between *the primary expenses* by steam on railway and on canal, so long as there is an extravagant margin in favor of steamers; neither is it necessary that a full detailed specification of the different kinds of freights, prices, tolls, and respective quantities should be given to the different classes by steam on canal, as it is fully sufficient if they are relatively reliable.

This statement shows that the first class freight by steamers is the first in financial merit, nevertheless, the other classes must exist or this preference cannot exist, any sooner than we can have super-extra brands of flour without the lower brands; and experience will control the number of boats to each class.

This statement also shows the complete and undisputable superiority of economical transportation, by a proper steam system, over the living ability of railways to carry freight, as they can make extravagantly large profits at prices at which the railways would make large losses.

I repeat, as before stated, that there is a hypothetical condition to these statements, predicated simply, yet substantially, upon the adaptation of mechanism to develop the chief of the power of the steam expended by the "Cathcart," "Sternberg," "Charles Wack," "Lone Star," and the Syracuse adjustable side-wheel steamer without utility in transportation, in useful duty. The proofs that this hypothesis is understandingly made, *and will become a true, reliable, practical condition of transportation,* are reserved for another presentation of the subject; and until presented this condition of the statements cannot be adjudged, neither comparatively nor abstractly, no more than the public could adjudge the telegraph when

Professor Morse was demonstrating here in the University the science and operations of it, and unknowingly whilst unknown compare it with the old "signal telegraph," or abstractly pronounce it meritorious or without merit.

This incomplete condition of the subject does not effect the merit of this investigation, because all commercially interested parties should know the mechanical incompetencies of the present systems of marine propulsion, before they can aspire above them, or supersede them; and as all know that nothing better has ever been publicly developed, and that these have had the best adaptations of the experience of many years, and since millions of persons may say that they cannot be superseded, these facts should not stifle knowledge or investigation—and if after so many years of experience these systems are so extravagantly incomplete, *the fact solicits knowledge* in place of false opinions; solicits simple mechanical developments of the power in place of those now made that are so complex, that they are very seldom correctly understood, and solicits the substitution of economical and efficient mechanism, be its novelty what it may.

The introduction of a well adapted-system will at once throw into profitable activity canal-boat builders, engine builders, and open a wide demand for engineers, for the canal requires some two thousand engines—not to do the business now done, as it is now done, consuming to the passage by the weary-worn horse the ordinary time from here to Europe by steam—but to do a largely increased business, and in such reduced times as that it shall not be disrespectful to the enterprise of the age; and as canal forwarders, for the last season coupled with this, have suffered greatly by the enterprise of the railways, conjointly with the revulsion of trade the last, and its dormant state this, season—which facts conspire to condemn the sluggish manner they now do business, consigning to a cargo and return cargo a month of time, by which they elevate by contrast the activity of steam that takes their profits from them, if perchance it does not consign them to grievous losses—they should feel compelled, as a means of self-perservation, to elevate their craft to the dignity and efficiency due to steam—else steam on other great routes will draw closer and closer the bondage which they now feel, until they shall travail in pains for delivery at last by steam.

It may not be said by readers, or steamboat men, or engineers, that these things cannot be done, for whilst it is safe for them to say what they cannot do, it is not safe for them to say of others, where there is a remarkable opening for something remarkable to be done, that some other talent cannot meet the demand, for it required but one Watt, one Fulton, one Henry Bell, one Morse, and one Field, that each in their sphere should triumph over the cant-do's of the world beside them—and a single person with knowledge of what he can do is worth more in the progressive eras of usefulness than thousands beside of "cant-do" men.

Steam can accomplish what I have set forth for it on the canal, and as when steam embarked upon the Hudson, and upon the broad stormy Atlantic, we saw not its rapidity of growth and successive expansions, and its invaluable contributions to commerce, so when steam shall embark upon the enlarged Erie, clothed with a mechanical fitness for its duty, we may not now see its rapidity of growth and successive expansions, and its invaluable contributions to commerce, but we shall see that its blessings are incalculably great.

Art. II.—SUGAR: ITS PRODUCTION AND CONSUMPTION.

GENERAL STATE OF TRADE — EFFECTS OF EXCHANGES — INTRODUCTION IN EUROPE — ITS DISSEMINATION — TRANSPLANTED TO AMERICA — GROWTH IN THE ISLANDS — BRAZIL AND LOUISIANA — TWO CHEMICAL SUGARS — SEVERAL SORTS OF EACH — CANE SUGAR, ITS TOTAL PRODUCT — PALM SUGAR — MAPLE SUGAR — BEET-ROOT — BEET-ROOT PRODUCTION IN FRANCE — TOTAL PRODUCT OF SUGARS — PRODUCTION OF CANE AND BEET-ROOT SUGARS — BEET-ROOT IN THE ZOLLVEREIN — BEET-ROOT SUGAR IN FRANCE — YIELD OF CANE AND BEET SUGAR PER ACRE — PHILIPPINE ISLANDS — MAURITIUS — BOURBON — WANT OF LABOR — SORGHO — CONSUMPTION OF SUGAR — EXTENSION IN FRANCE — CHEMICAL SUGAR — MARKETS FOR SUGAR — LOUISIANA — FLUCTUATION — CONSUMPTION IN THE UNITED STATES — PRICE — IMPORT AND DOMESTIC GROWTH — CONSUMPTION PER HEAD IN GREAT BRITAIN, FRANCE, AND UNITED STATES — FUTURE CONSUMPTION.

This trade, from various causes, has received an enormous development within the past few years, and was last year, from its peculiar relation to the foreign exchanges of the United States, a prominent cause of the derangement of the finances. The consumption of sugar in Europe and the United States has, during the present century, received a great development, and has in the last few years exerted an increasing influence upon the trade of the world. The taste for sugar spread in Europe as a consequence of the crusades. It was introduced in the ninth century by the Saracens into Rhodes, Cyprus, Sicily, and the south of Spain. The plant followed the conquests by southern Europeans, passing with the Spanish and Portuguese into the Canaries and Madeira; and when the Spaniards, established in America, transplanted the cane thither, they became astonished at its great production in St. Domingo as compared with Andalusia. The efforts of the Portuguese in Brazil were, however, crowned with the most marked success, and Lisbon drew great wealth from that source. In the middle of the seventeenth century the Brazils gave 75,000 tons; but there were but three sugar works in Jamaica at the same period, when England took it. The plant from that time spread rapidly to all the West India islands, as well as to Mexico. The possession of the sugar islands became the bone of contention between France, England, and Spain, and at the date of the French revolution St. Domingo was the most successful of all in that respect. The cane was introduced into Louisiana in 1751, and M. Dubreul established the first plantation in 1758. His success stimulated others, until, in 1803, the number reached eighty-one; but in the last twenty years it has there received its greatest development. In Europe, latterly, cane sugar has encountered a serious rival in the beet-root sugar of Europe; of other sugars the success is not great.

Chemistry distinguishes two sugars—one, that furnished by the cane, is found to be identical with that yielded by many other vegetables. Of these, certain trees of the palm family, the chesnut, the maple, the stalk of Indian corn, and some roots, of which the beet is the most important. The other sugar is contained in grapes, in pears, apples, and most species of fruits. This species of sugar will not granulate, or crystalize, like that of the cane, but it is made in considerable quantities for certain uses, particularly for mixing with grape juice, in order to augment the quantity of alcohol in wine. This article does not, however, come under the head of sugars known to commerce.

The production of the sugar from canes has undergone great changes in the last fifty years. Hayti, which produced 93,573,000 pounds in 1789,

produced but 2,020 pounds in 1825, being the effect of a change of policy. On the other hand, the Mauritius, which produced 1,034.274 pounds in 1814, exported 280,000,000 pounds in 1856. The Island of Cuba has come to be the largest source of supply. The quantity of cane sugar produced in the world, in average years, is as follows. The total quantity given, in 1838, was 738,000 tons, showing an increase of 420,000 tons in twenty years:—

AVERAGE SUGAR PRODUCT OF THE WORLD.

East Indies.....tons	148,500
British West Indies and Mauritius.....	203,000
Cuba, Porto Rico, and Philippines.....	325,000
Brazils.....	200,000
Java and Surinam	65,000
French West Indies.....	64,667
Danish colonies.....	7,500
United States.....	136,486
Spain.....	7,500
Total	1,157,653

The East India production embraces 70,000 tons, which finds its way to Persia and Tartary. Nearly the whole of the remainder is transported from the place of production to find consumers. There remains in each producing country a quantity which is consumed on the spot. Thus, it is estimated that thirteen pounds per head, or 600,000 tons, is consumed in India; and other producing countries, it is estimated, consume 300,000 tons, which gives a total production of 2,057,653 tons of cane sugar. The consumption of sugar in Cuba is very large per head of the population, since it enters into the preserves of all kinds of fruits, which form a considerable item on every table.

It is estimated that the production of palm sugar in the Indian Archipelago, in the Kingdom of Siam, southern Sumatra, Ceylon, and Java may reach altogether 100,000 tons. Maple sugar is made in the United States and Canada from the sap caught from old forest trees, and reaches about 20,000 tons per annum. In this last year it was estimated to have reached 38,000 tons. Beet-root sugar is made mostly in France and Germany. It was born of the continental system of Napoleon, and the discovery of the value of the beet-root manufacture was received with the greatest favor by the government. In 1810, there already existed two hundred beet-root factories, yielding 2,000,000 pounds per annum. The product is now over 200,000 tons. From a forced culture, to produce a substitute for the colonial product in time of war, it has grown to be a formidable rival, even supplanting cane on equal terms, and, in some cases, sustaining adverse legislation. Nearly all the States of the center and north of Europe have entered into the culture with great spirit and success. There are in France 341 sugar factories; Belgium, 40; in the Zollverein, 231; Austria, 171; Russia, 360; Poland, 40; and the product will average 250,000 tons. The production in France is the greatest, but that of the Zollverein is not far behind. The production of beet-root sugar in France did not much increase up to 1828, probably in consequence of the general exhaustion of the country consequent upon the long wars. It enjoyed, however, a great protection, being free of import, while colonial sugar was charged 50 francs per 100 kilogrammes, equal to 4¼ cents per pound. This stimulated the beet-root production to a great extent, inducing large investments in machinery. It resulted that

the home-made sugar so far supplanted the cane that the government revenues began to suffer, and the colonists raised a great outcry about the loss of the market, demanding that the beet-root sugar should be suppressed by the purchase of the interest by the government. During the agitation of this matter the beet-root sugar interest languished, because its future was uncertain. Finally, in 1843, a tax was imposed upon it, to be enhanced annually for five years, when it would be the same as the duty on cane sugar, viz., 49f. 50c. per 100 kilogrammes. In face of this onerous tax the interest took a new start, and many improvements were introduced, not only in the cultivation of the cane, but in the mode of extracting the sugar. Of the 10 per cent of sugar which the roots contained, the new process raised the proportion obtained from 7 to 8, and now nearly 9 per cent. The political difficulties of 1848 interfered with the production, but it was also stated that a new and simple mode of extracting sugar had been discovered, by which the expensive machinery would be done away with. These fears were found to be exaggerated, and the manufacture progressed. It has been since checked by the failure of the corn crops, which, inducing high prices for grain, curtailed the extent of the root culture, and again by the grape failure, which induced the distillation of alcohol instead of sugar.

The provisional government of 1848 also maintained the duty on beet-root sugar at 50 francs, and reduced that on cane from the West Indies to 44 francs, and on Bourbon to 41 francs. The 3 francs were supposed to compensate for the longer voyage. The duties are now equalized on all. In Germany, mostly in the Zollverein, beet-root sugar is protected against cane sugar by a duty of 25 francs per 100 kilogrammes, 2¼ cents per pound. But the mode there in use, of levying the duty on beet root sugar, is said to be better than that of France. In the latter country, the duty is on the weight of sugar made. This exposes the factories at all times to the inconvenient visits of the government officers. In Germany, on the other hand, the duty is on the weight of beet-roots delivered at the factories. This mode dispenses with all surveillance upon the manufacturing process, giving the German manufactories a great advantage. The production of sugar in the other countries of Europe has been progressive, but in a smaller ratio. If we enumerate the quantities of all those sugars that are produced annually, the result is nearly as follows:—

Cane sugar.....tons	2,057,653	Beet-root sugar .....tons	164,822
Palm sugar.....	100,000	Maple sugar.....	20,247
Total.....			2,342,722

But the quantity of sugar from which the United States, England, Europe, and the Mediterranean is to be supplied, reaches only 1,2[illegible]3,000 tons. Thus, for the 300,000,000 souls who are dependent on it, it gives but about eight pounds per head, while the consumption in England is triple that quantity, and in the United States twenty pounds per head. The use of sugar in the world is rapidly increasing. In France it has doubled in thirty years. It has increased more than 50 per cent in England in fifteen years. In the Zollverein it has quadrupled. The cane is that which chiefly enters into commerce, and rivals beet-root only in the countries of its production. There is imported into California about 10,000,000 pounds of sugar per annum, from China mostly; also from Batavia, Peru, Sandwich Islands, and Mexico. This seems to be a grow-

ing trade. The following is a table of the production of cane and beet-root sugar for a series of years:—

PRODUCTION OF SUGAR.

	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Cuba.....tons	220,000	250,000	320,000	310,107	331,204	349,502	375,475	357,347	369,610
Porto Rico.. . .	43,600	48,200	49,500	47,981	39,202	40,107	41,058	53,877	35,660
Brazils.....	121,009	113,271	141,685	106,672	152,601	114,509	113,754	105,603	125,000
United States....	98,200	120,400	103,200	118,273	160,967	224,662	173,317	115,718	36,903
W.Indies, French	56,300	47,200	50,000	65,252	71,102	78,780	81,713	110,000	106,686
" Danish	7,900	5,000	6,000	8,011	9,000	10,000	9,711	11,204	12,212
" Dutch.	13,000	14,200	15,000	13,100	14,101	17,102	16,701	18,291	19,000
" British	142,200	129,200	168,000	153,134	141,538	172,215	146,498	147,911	146,925
East Indies.....	73,400	67,300	66,000	78,280	79,112	40,121	37,104	58,383	57,822
Mauritius	44,700	50,200	58,000	68,066	80,000	101,000	107,235	115,000	110,000
Java.	90,000	89,000	62,000	86,297	85,109	74,771	59,210	68,240	72,911
Manilla.....	20,000	23,189	26,806	25,912	39,270	41,908	46,210	48,422	42,210
Total cane.....	915,300	936,700	1,022,000	1,083,085	1,208,206	1,264,677	1,207,986	1,209,491	1,134,959
France.....	38,000	61,000	75,000	69,110	74,910	76,951	44,669	92,197	83,126
Belgium	5,000	6,000	8,000	7,121	9,200	8,760	9,000	9,180	10,101
Zollverein.....	33,000	38,000	49,000	62,111	85,000	70,821	73,981	80,753	87,319
Russia	13,000	14,000	15,000	17,525	16,201	17,192	18,192	21,207	22,208
Austria	6,500	10,000	15,000	16,101	15,611	14,211	17,111	19,102	19,892
Total beet-root.	95,500	129,000	162,000	171,968	200,922	187,935	162,953	222,439	222,646
Grand total ..	1,010,800	1,065,700	1,184,700	1,255,053	1,404,128	1,452,612	1,370,939	1,431,930	1,357,605
Av. price of sugar at Amsterdam..	£ 53	59	58	58	60.50	60.95	66.15	67.15	69

The development of the sugar culture has been under the spur of the rising prices, as indicated in the average at Amsterdam as the leading central market. Under the head of Brazils is included the neighboring sugar crops, and the French West Indies includes Bourbon.

The production in the Sandwich Islands, in 1858, is 1,000 tons; the average is about 600 tons.

The quantity of beet-root used in the Zollverein has been as follows:—

	No. factories.	Cwt. beet-root used.		No. factories.	Cwt. beet-root used.
1840.....	145	4,820,784	1857.....	241	26,138,309
1851.....	184	14,724,309	1858.....	251	28,409,674
1852.....	220	17,831,406			

The quantity of beet-root used in the several countries, which compose the Zollverein, for 1858, was as follows:—

BEET-ROOT IN THE ZOLLVEREIN IN 1858.

Prussia.....cwt.	24,312,925	Saxony.....cwt.	118,738
Brunswick	1,293,352	Hanover.....	84,346
Baden..	1,139,735	Hesse	20,028
Wurtemburg	935,325		
Bavaria.....	877,166	Total, 1858.....	28,409,674
Thuringia.....	225,853	Total, 1857.....	26,138,304

The beet-root sugar manufacture in France is shown in official reports for the season of 1857–58, to the end of the month of August. It appears from it that there were 341 factories in operation, which is an increase of 58 on the previous year. There were 146 of them in the department of Nord; 54 in Aisne; 62 in Pas de Calais; 34 in Somme; 21 in Oise, and 24 in fourteen other departments.

	1857.	1858.	Increase.
Number of factories.....	283	341	58
Made.....kilo.	83,126,618	151,514,435	68,387,817
Consumed.....	78,071,137	111,877,112	33,805,975
Stock, August 31st, in factories.....	4,344,483	16,067,330	11,722,847
" " in warehouse....	5,684,390	10,106,737	4,418,347
Total stock.....	10,028,873	26,174,067	16,141,194

A kilogramme is equal to 2.20 pounds; hence, a thousand kilogrammes is very nearly one ton, and the increase of production is 68,387 tons.

There is a great difference in the production of land per acre in cane sugar as well as in beet-root, and land, formerly productive, has much degenerated. The British and French West Indies formerly gave 6,000 pounds of sugar to the acre; they will now hardly average 2,000 pounds. The Mauritius, before the use of guano, gave about 2,000 pounds to the acre; the use of that fertilizer brings it up to 6,000 pounds, and relatively the production is as follows:—

Mauritius.....lbs.	6,000	Vera Cruz.....lbs.	1,900
Brazil.....	5,000	Martinique.....	1,700
Cuba.....	4,000	Bengal.....	1,600
Isle of Bourbon.....	3,800	St. Domingo.....	1,100
Guadaloupe.....	2,000	Louisiana.....	1,000

The production of sugar in Bourbon has also undergone an immense development by reason of the use of guano. The product has increased from 23,000,000 pounds in 1851 to 56,000,000 pounds in 1856. These are very gratifying results, but the product of beet-root in Europe is, under the circumstances, as good—an acre of land will give 20,000 pounds of beet-roots. These contain 10 per cent of sugar; of this, 8 per cent is extracted, and it is said it will be raised to 9 per cent, equal to 1,800 pounds of sugar. This is worth, in France, 128 francs per 100 kilogrammes, against 118 francs per 100 kilogrammes for colonial, a difference of 18 per cent in favor of beet-root sugar over and above the cost of transportation and ocean freight. It has been the case, however, that the production of cane sugar has greatly progressed in the last few years in some localities. This has been the case more particularly in the Mauritius, in the Philippine Islands, and in the French Island of Bourbon. In the first-mentioned place the crops had doubled in ten years under the joint influence of improvements in manufacture, increase of laborers, and the use of guano; and some 300 sugar estates are now cultivated. The number of Coolies is 142,534, and about 15,000 tons of guano are used per annum, and the product of sugar is limited by the number of hands that can be obtained. In the present year we have advices to the 1st of August. The weather was fine, and the crops had commenced on several of the estates. The sugar crop is expected to reach 120,000 tons, the largest ever made. Immigrants had arrived in large numbers, and food, notwithstanding its reported scarcity in India, had been received in considerable quantity.

The French islands are better situated in that respect, and the sugar product increases rapidly. With cane sugar the great difficulty is want of hands, as well in Cuba as in the Brazils and in eastern countries. The undoubted growing demand for sugar is checked by that want, and its consequences are manifest in many ways. With beet sugar, on the other hand, no such restriction is felt. It has now become a fixed culture in northern and middle Europe. It maintains itself not only unassisted, but in face of restriction, and appears to be of a more certain crop than cane in some quarters.

The cultivation of sorgho was extensively entered into in France, but its ability to yield sugar has not answered the expectation entertained of it. It has been discovered, however, that it will yield alcohol nearly 30

per cent cheaper than beet-root. It has followed that numbers of beet-root factories, particularly in the north of France, have abandoned distillation and resumed sugar making.

The consumption of sugar in France, Great Britain, and the United States for several years, has been as follows, comparatively:—

TONS OF SUGAR, DOMESTIC AND IMPORTED, CONSUMED ANNUALLY IN FRANCE, GREAT BRITAIN, AND THE UNITED STATES, SHOWING THE ANNUAL AVERAGE PRICE, AND THE POUNDS PER HEAD.

	ENGLAND.				FRANCE.				UNITED STATES.				
	Tons.	Lbs. per head.	Price in bond. s.	d.	Foreign.	Colonial.	Beet-root.	Total in tons.	Imported.	Louisiana.	Total in tons.	Lbs. per head.	Cts. pr lb.
1801..	114,542	30.5			....	....	.....	.....	21,376	....	.....	..	.
1811..	169,611	29.4	46	10	....	....	2,000	.....	24,791	....	.....	..	.
1821..	170,612	19.3	33	2	....	....	.....	.....	26,672	....	.....	6	.
1831..	203,912	19.0	23	8	546	81,105	10,000	91,651	44,178	35,000	79,178	13½	.
1841..	203,200	17.0	30	8	12,042	74,515	27,162	114,719	65,601	38,000	103,601	13½	4½
1842..	193,823	16.0	36	11	8,210	77,443	35,070	110,723	69,474	39,200	108,674	13½	3½
1843..	204,016	17.0	33	9	9,605	79,455	29,135	118,215	28,854	64,360	93,214	11½	3½
1844..	206,000	17.0	33	8	10,269	87,382	32,075	129,626	83,801	44,400	128,201	15	3½
1845..	242,831	20.0	32	8	11,542	90,958	35,132	137,632	84,336	45,000	133,336	15½	4½
1846..	261,932	21.0	33	2	15,185	78,632	46,845	140,662	44,974	83,028	128 005	14½	4½
1847..	290,295	23.0	27	8	9,626	87,826	52,369	149,821	98,410	71,040	169,450	18½	4½
1848..	309,421	25.0	23	5	9,540	48,371	48,103	106,014	104,214	107,000	211,214	22½	3½
1849..	299,041	24.0	25	2	18,979	63,335	43,793	126,107	103,121	99,180	202,301	20½	3½
1850..	310,391	25.0	25	2	23,862	50,996	67.297	142,155	160,210	141,600	301,810	29½	3½
1851..	329,715	27.0	25	2	19.223	50,170	61,847	131,240	201,493	120,331	321,824	30	3½
1852..	344,943	29.0	22	10	14,882	32,030	67,445	114,357	196,558	118,659	315,217	29	3½
1853 .	363,641	30.0	25	00	15,044	32,841	87,120	135,005	200,610	172,379	372,989	36½	3½
1854..	401,437	34.0	21	5	18,943	40,113	85,825	144,981	150,854	234,444	385,298	34	3
1855..	369,957	30.0	26	9	49,822	45,373	52,902	148,097	192,607	185,145	377,752	31½	3½
1856..	341,673	28.0	27	7	16,456	46,767	78,071	141,294	255,292	123,468	378,760	30½	4½
1857..	355,719	29.0	32	10	25,689	42,466	111,877	180,032	241,765	39,000	280,765	23½	5½

The consumption of sugar in Europe is susceptible of great extension with the amelioration of the condition of the people. Thus, in France, it is estimated that 20,000,000 persons do not even now use sugar. In the interior of Europe the numbers are also large, and, with the cheapening value of sugar, while the general welfare of the people improves, the demand for sugar increases far faster than the labor-restrained culture of the cane can supply. Science is also busy, and it is asserted the chemists, M. Braconnet, of Nancy, among others, has succeeded in transmuting certain woods, straw, hemp, and flax, by the use of concentrated sulphuric acid, into the description of sugar called glucose, pound for pound. It is not probable, however, that immediate important results will flow from this process.

The markets have fluctuated largely in the last few years. The crops of 1853, in Louisiana, although produced from a diminished number of plantations, turned out to be very large, reaching 449,324 hogsheads. As a consequence, prices were very low, assisted by a financial pressure, which diminished the consumption of sugar, particularly refined. This discouraged many planters, who turned their attention to cotton. In the following year the consumption of sugar was everywhere enhanced, as well by increasing population as the disease in the vines in Europe, causing the low-priced sugars to be distilled. The result was a considerable rise in prices, which was aided by the decline in the crop of Louisiana. This deficit counteracted the diminution in supply, which might have been looked for from high prices. Those high prices, however, stimulated production, but a further serious decline took place in the domestic cane. The low prices of 1854 had reduced the number of sugar-houses from 1,481 to 1,299, as stated by M. Champomier; and, at the same time, the agitation of a reduction of duty added to the discouragement of planters. Efforts were made by Congress to introduce new cane-cuttings, and great hopes were excited by the promise of "sorghum," or Chinese sugar cane.

Nevertheless, the Louisiana sugar crop fell to the small figure of 39,000 tons, causing an immense demand for the foreign article, and inducing the import of a new article, "melado," of which about 70,000 hogsheads were imported, equal to 23,400 tons of sugar. The operation was not supposed to be successful. As far as sugar-making goes, "sorghum" is a failure; although, in France, alcohol is extracted from it much cheaper than from beet-roots, and the distillation of the latter has been stopped. The "sorghum" may serve to prevent cane from being distilled on occasion of the failure of the vines, but will not supply much sugar directly. The high prices of sugar stimulated the production of maple sugar to an unprecedented extent, and the crop was more than double that of any former one.

The same agency induced great exertions in raising the Louisiana crop by planting more land and improving the cultivation, but an early frost and other circumstances reduced it to 279,697 hogsheads. The introduction of the bi-sulphite of lime in the manufacture of sugar has a very important influence upon the Louisiana crop. First-class sugar, it seems, or sugar which brings the highest prices, cannot now be made without the use of the bi-sulphite, and this has been brought to great perfection by Mr. Bonnabel, of New Orleans. It is producing quite a revolution in the Louisiana culture, since with it fine sugar is produced even from frost-touched cane. The import and consumption in the United States, as made up for the New York *Shipping List* annually by leading brokers, have been for six years as follows, in tons of 2,240 pounds each:—

IMPORT, EXPORT, AND CONSUMPTION OF SUGAR IN THE UNITED STATES.

	Stock, tons.	Receipts, tons.	Exports, tons.	Consumption. Foreign.	Consumption. Domestic.	Total, tons.
1850	.....	.....	.....	160,210	141,592	301,802
1851	.....	.....	.....	201,405	120,331	321,736
1852	.....	.....	.....	196,558	118,659	315,217
1853.....	18,212	212,746	16,818	200,610	172,379	379,989
1854.....	14,030	165,925	22,636	150,854	234,444	385,298
1855.....	6,465	205,064	12,972	192,607	185,145	377,752
1856.....	5,950	275,662	9,501	255,292	123,468	378,760
1857.....	16,819	269,180	28,705	241,765	39,000	280,765
Total, six years.....						2,110,781

These quantities require to be corrected by the estimated use of molasses, maple sugar, and the California and Oregon consumption, as follows:—

	Consumption as above.	Made of molasses.	Maple sugar.	California and Oregon.	Total U. S., tons.
1854..... ...	385,298	12,633	12,300	4,700	414,931
1855.....	377,752	11,160	14,500	5,500	408,912
1856.....	378,760	11,875	14,500	7,000	412,135
1857.....	280,765	10,300	35,000	6,000	332,065

The average prices for the year in New York has been as follows:—

	New Orleans.	Havana. White.	Havana. Brown.	Manilla.	Brazil.
1851.....	5.49	7.48	6.05	5.	5.25
1852.....	4.84	7.07	5.75	4.17	4.39
1853.....	5.45	7.37	5 95	5.12	5.04
1854.....	4.99	7.00	5.88	5.02	5.00
1855.....	6.25	7.66	6.54	6.54	5.97
1856.....	8.33	10.23	8.90	8.05	7.84
1857.....	9.04	11.87	9.69	8.68	9.74
1858, January.....	6.87	9.12	7.12	6.50	....

The large Louisiana crop of 1854 checked slightly in New York the advance in prices, which had previously taken place all over the world. But the subsequent dimunition of the crop gave a new impulse to values. The crop of 1858 has turned out 279,697 hogsheads, or 307,666,700 pounds, and has, probably, netted more money than any previous crop.

If we compare the above figures of supply and consumption in the United States with the annual returns of the Treasury Department, we have results as follows:—

	Imports.	Exports.	New Orleans crops.	United States consumption.
1852..... lbs.	456,774,133	12,655,469	260,201,700	704,320,364
1853.....	463,529,559	29,056,317	354,127,400	738,600,642
1854.....	455,178,995	65,861,289	494,256,400	883,574,106
1855.....	473,548,714	48,509,186	381,298,500	806,338,028
1856.....	543,956,655	34,600,471	254,569,700	763,925,884
1857.....	776,149,999	21,594,164	81,373,600	834,711,257

Total in six years, in tons.....	2,134,585
Total in six years, in tons, as above	2,110,781

The export is attained by taking the foreign and domestic refined exported in its equivalent raw, added to the weight of raw exported. The year for the returns are to June 30th, while that of the above figures are to December 31st. The single years would not, therefore, correspond. Reducing the pounds to tons we have for the Federal returns 2,134,585 tons consumed in six years, and, according to the brokers' returns, 2,110,781 tons consumed in the same period—a variation of 23,804 tons in six years, which is not large when we consider the circumstances of the returns; and the imports into California from Asia, included in the government returns, would more than account for that difference. It may be, therefore, assumed that the two different modes of arriving at the same result nearly agree as far as cane sugar goes. The actual quantity so given is swollen by the molasses and maple sugar to an average of 392,000 tons per annum.

If we now compare the consumption of France, Great Britain, and the United States, we have results as follows:—

	Population.	Average consumption, tons.	Equal to lbs. per head.
France.....	36,000,000	150,000	9
Great Britain	28,400,000	360,000	28¼
United States.....	27,000,000	392,000	31¼

In Prussia the consumption is six pounds, and in Belgium fourteen pounds, per head; such is the enormous difference between the two countries. Allowing the estimate that 20,000,000 of French people never eat sugar, there would remain twenty pounds per head for the 16,000,000 persons who do use sugar, a quantity still very far below the American standard. Great numbers of people in Great Britain also do without sugar, and in the interior of Europe the same state of things exists to a greater degree. It is obvious that the more extensive use of sugar, through the improved general condition of the nations, would make serious demands upon production, which cannot be met by cane sugar in the present condition of labor applicable to it.

Art. III.—CAUSES OF THE RECENT COMMERCIAL DISTRESS.

WITH REFERENCE TO THE LAWS FOR REGULATING THE ISSUE OF BANK NOTES.

CURRENCY QUESTION—LAW OF 1819—LONG DISCUSSION—A SOVEREIGN—FIXING VALUE—NATURE OF A PROMISE—BANK OF ENGLAND CHARTER—COMMITTEE ORDERED—NAMES OF COMMITTEE—REPORT—INCREASE OF GOLD IN EUROPE—REMISSION OF DUTIES—INCREASE OF CIRCULATION—SMALL NOTES—SILVER COIN—LARGE NOTES—JOINT-STOCK BANKS—SMALL DEPOSITS—FOREIGN TRADE—IMPORT OF GOLD—ECONOMY OF CAPITAL—BULLION IN BANK—EXPORTS OF 1853—RUSSIAN WAR—GOLD HOARDED IN THE EAST—ACT OF 1844—COURSE OF TRADE—AFFAIRS, AUGUST, 1857—AMERICAN NEWS—SUSPENSIONS IN NEW YORK—BANK FAILURES—ALARM IN LONDON—BILL-BROKERS—1847 AND 1857—AFFAIRS OF THIRTY HOUSES—ABUSES OF CREDITS—FAILURE OF FIVE HOUSES—INDIVIDUAL INCAPACITY—NORTH OF EUROPE—MONETARY ALARM—GOVERNMENT ACTION—NO SYSTEM OF CURRENCY PERFECT.

THE currency question in Great Britain has been one fruitful of discussion, since the bank restriction act at the close of the last century imposed one kind of currency on that nation for nearly a generation, to be succeeded by another, when the bank, by the act of 1819, was forced to resume its payments in specie. The whole question, embracing its influence upon prices, and consequently upon the value of property, has been thoroughly discussed, yet it seems to be no nearer a settlement than before. It appears on its surface to be very simple in its relations to the precious metals. Thus, gold is a commodity, of which the value is universally recognized. Every individual, who produces any article whatever, is eager to exchange it for gold, and the quantity he gets is called "price." If an individual expends two-and-a-half dwts. of gold in producing an article, and he can get five dwts. for it, he has increased his stock of gold, but he expresses it by saying for what cost him half a sovereign he has obtained a whole sovereign. This arises from the fact that the government, in order to relieve individuals of the trouble and risk of testing and weighing gold, has assayed and weighed it out into pieces of five dwts., 3,274 grains troy each, and has called those pieces "sovereigns." This is only another name for a weight of gold. It follows that all notes of hand, and other certificates of indebtedness, express on their face a promise to pay so many sovereigns instead of a certain weight of gold. A note reads, "I promise to pay four sovereigns," instead of saying, "I promise to deliver one ounce of gold nine-tenths fine." It is, of course, beyond dispute, that if a man solemnly promises to deliver a certain weight of flour, of iron, of gold, or any other commodity for a consideration, he is legally and morally bound to do it at all hazards. It is not valid for him to say, "I know I promised to deliver a ton of iron, but I find it inconvenient; to get the iron will cost me all my property, which I have acquired by multiplied promises to deliver iron in exchange; but I will give you molasses." What is called an "increase of credits," is only a limitless number of promises to deliver gold. Exchanges of promises are made, and cancelations by offset take place, but finally there is a quantity of promises that must be met in gold according to their tenor. Then steps in a class of financiers who say the difficulty is with the government. These people have not promised more than they can or wish to perform, but the government has "fixed the price of gold." A man who has promised a sovereign is compelled to find five dwts., 3,274 grains of gold. The inference is, that if the government had not

"fixed the price of gold," that the man who had promised a sovereign might give his creditor one dwt. of gold, or any other quantity, and assert that to be a sovereign. This seems to be the idea which prevails with a large class of persons; those who contend for aid and help in time of difficulty, and who now direct their arguments against the present charter of the Bank of England as being too restrictive. The occasion of every difficulty, like that of the last year, in the money market, is made use of to renew the attack. This is more particularly the case now, as the period approaches for a readjustment of the bank charter act. Under these circumstances the House of Commons, December 11th, 1857—

"*Ordered*, that a select committee be appointed to inquire into the operation of the Bank Act of 1844, (7 and 8 Vict., c. 32,) and of the Bank Acts for Ireland and Scotland of 1845, (8 and 9 Vict., c. 37 and 38.")

"*Ordered*, that it be an instruction to the committee to inquire into the causes of the recent commercial distress, and to investigate how far it has been affected by the laws for regulating the issue of bank notes payable on demand."

"House of Commons, 8th of February, 1858.—*Ordered*, that the committee do consist of twenty-five members."

Committee nominated of—

The Chancellor of the Exchequer.	Sir Francis Baring.	Mr. Puller.
Mr. Disraeli.	Mr. Vance.	The Earl of Gifford.
Sir James Graham.	Mr. Cardwell.	Mr. Fergus.
Mr. Spooner.	Mr. Blackburn.	Mr. John L. Ricardo.
Sir Charles Wood.	Mr. Wilson.	Mr. M. Tucker Smith.
Mr. George A. Hamilton.	Mr. Weguelin.	Mr. Glyn.
Mr. Gladstone.	Mr. Hankey.	Mr. Ball.
Mr. Cayley.	Mr. Hope Johnstone.	Mr. Tite.
	Mr. Ennis.	

The report of this committee is long, and goes at length into the elements of commercial activity that were put in operation by the gold discoveries. We extract as follows:—

"The select committee appointed to inquire into the operation of the Bank Act of 1844, (7 and 8 Vict., c. 32,) and of the Bank Acts for Ireland and Scotland of 1845, (8 and 9 Vict., cap. 37 and 38,) and who were instructed to inquire into the causes of the recent commercial distress, and to investigate how far it has been affected by the laws for regulating the issue of bank notes payable on demand, and who were empowered to report their observations thereupon, together with the minutes of the evidence taken before them, have considered the matters to them referred, and have agreed to the following report:—

"1. The ten years which have elapsed since the last committee sat under the same order of reference—viz., the committee on commercial distress, which reported in 1848, have been marked by many circumstances of peculiar interest and importance. The foreign trade of the United Kingdom has in that period increased with a development unprecedented, perhaps, by any other instance in the history of the world. The exports, which before 1848 had never exceeded £60,110,000, the amount which they attained in 1845, have risen with little variation and with great rapidity; and in 1857, notwithstanding the severe commercial pressure which marked the latter portion of that year, they stood at £122,155,000.

"2. In the year 1849, the newly discovered mines of California began to add perceptibly to the arrivals of gold; and in 1851, the supply was increased by the still more fertile discoveries in Australia. The following figures, for which your committee are indebted to the authorities of the bank, will show how important an addition appears to have been made to the circulating medium of the world from these new sources of supply:

ESTIMATED INCREASE OF THE EUROPEAN STOCK OF BULLION IN SEVEN YEARS, 1851–57.

	Imports from producing countries.		Exports to the East from Great Britain and the Mediterranean.	
	Gold.	Silver.	Gold.	Silver.
1851	£8,654,000	£4,076,000	£102,000	£1,716,000
1852	15,194,000	4,712,000	922,000	2,630,000
1853	22,435,000	4,855,000	974,000	5,559,000
1854	22,077,000	4,199,000	1,222,000	4,583,000
1855	19,875,000	3,717,000	1,192,000	7,934,000
1856	21,275,000	4,761,000	479,000	14,108,000
1857	21,366,000	4,050,000	529,000	20,146,000
Total.....	£130,876,000	£29,870,000	£5,420,000	£56,676,000

GOLD.

The total import of gold in seven years has been, say.....	£130,000,000
The exports of gold bullion and British gold coin to India, China, Australia, the Cape, Brazils, the West Indies, United States, etc., may be taken at	22,500,000
Which would leave as the increase to the European stock of gold...	£107,500,000

SILVER.

The exports of silver to India and China have been..	£56,676,000	
The imports from the producing countries.....	29,870,000	
Making the amount of silver abstracted from the European stock...		26,800,000
And the estimated increase in the European stock of bullion...		£80,700,000

"3. The remission of duties upon articles of necessity, and upon the raw materials of industry, and the great increase of trade to which your committee have referred, were naturally attended by a very remarkable improvement in the comforts and consuming power of the people, as exhibited in the imports; and especially in the vast increase in the clearances of those articles which enter most materially into the consumption of the working classes. It is probable that to this cause ought chiefly to be attributed the great increase which is believed to have taken place in the circulating medium of the United Kingdom. Mr. Weguelin, a member of the committee, and then Governor of the Bank, stated to the committee of 1857, that this increase was estimated by those in whose judgment the bank directors placed the greatest reliance, at 30 per cent in the six years then last elapsed. The total gold circulation is believed by him now to amount to nearly £50,000,000. The whole circulation of notes, which under the acts of 1844 and 1845 are permitted to circulate, without being represented by bullion, retained for that purpose in the coffers of those who issue the notes, is £31,623,995, of which £14,475,000 are issued by the Bank of England; £7,707,292 by the English country bankers; £3,087,209 by the Scotch, and £6,354,494 by the Irish bankers.

"4. With regard to bank notes, it is interesting here to observe, that in the smaller denominations, those, namely, which enter most into the

retail transactions of the country, the number has been considerably increased, concurrently with the increase of the gold circulation above referred to. The £5 and £10 notes of the Bank of England, which in 1851 were £9,362,000, had risen in 1856 to £10,680,000.

"5. At the same time, for a reason which will presently be noticed, a great diminution has been observable in the use of notes from £200 and upwards.

"6. The silver currency has in the same time increased as follows, viz.:—

SILVER COIN ISSUED TO THE PUBLIC IN EXCESS OF RECEIPTS FROM THE PUBLIC.

1851.	1852.	1853.	1854.	1855.	1856.	1857.
£26,807	£420,418	£554,442	£36,808	£47,754	£289,142	£242,273

"7. While this expansion of trade was in progress, and the precious metals received this remarkable addition, a new feature in the banking business of the country was observable. The joint-stock banks in London entered more and more into competition with the private banks, and by their practice of allowing interest on deposits, began to accumulate vast amounts. On the 8th of June, 1854, the private bankers of London admitted the joint-stock banks to the arrangements of the clearing-house, and shortly afterwards the final clearing was adjusted in the Bank of England. The daily clearances are now effected by transfers in the accounts which the several banks keep in that establishment. In consequence of the adoption of this system, the large notes, which the bankers formerly employed for the purpose of adjusting their accounts, are no longer necessary. The diminution in the use of these notes is shown by the following figures:—

BANK NOTES OF £200 TO £1,000.

1852.	1857.
£5,856,000	£3,241,000

"8. Meanwhile the joint-stock banks of London, now nine in number, have increased their deposits from £8,850,774 in 1847, to £43,100,724 in 1857, as shown in their published accounts. The evidence given to your committee leads to the inference that of this vast amount, a large part has been derived from sources not heretofore made available for this purpose; and that the practice of opening accounts and depositing money with bankers has extended to numerous classes who did not formerly employ their capital in that way. It is stated by Mr. Rodwell, the Chairman of the Association of Private Country Bankers, and delegated by them to give evidence to your committee, that in the neighborhood of Ipswich, this practice has lately increased fourfold among the farmers and shopkeepers of that district; that almost every farmer, even those paying only £50 per annum rent, now keep deposits with bankers. The aggregate of these deposits of course finds its way to the employments of trade, and especially gravitates to London, the center of commercial activity, where it is employed first in the discount of bills, or in other advances to the customers of the London bankers. That large portion, however, for which the bankers themselves have no immediate demand, passes into the hands of the bill-brokers, who give to the banker in return commercial bills already discounted by them for persons in London and in different parts of the country, as a security for the sum advanced by the banker.

The bill-broker is responsible to the banker for payment of this money at call; and such is the magnitude of these transactions, that Mr. Neave, the present Governor of the Bank, stated in evidence—'We know that one broker had five millions, and we were led to believe that another had between eight and ten millions; there was one with four, another with three-and-a-half, and a third above eight. I speak of deposits with the brokers.'

"9. It thus appears that since 1847 three most important circumstances have arisen, affecting the question referred to your committee, viz.:—

"1. An unprecedented extension of our foreign trade.

"2. An importation of gold and silver on a scale unknown in history since the period which immediately succeeded the first discovery of America; and,

"3. A most remarkable development of the economy afforded by the practice of banking for the use and distribution of capital.

"10. In the years which immediately succeeded the great commercial crisis of 1847–8, the natural effect of such a crisis on the minds of persons engaged in trade was exhibited, and for a time prudence and caution were the marked characteristics of the commercial world. The bullion in the bank meanwhile accumulated, increasing, with little variation, until in July, 1852, it amounted to £22,232,000. At this time the notes in the hands of the public ran to the unusually large amount of £23,380,000, yet scarcely exceeded the amount of bullion, while the reserve of notes in the banking department of the Bank of England was £12,250,000, and the minimum rate of interest 2 per cent.

"11. The consequence of such a state of things was manifested in the year 1853, when the exports, which in 1852 had amounted to £78,076,000, rose to £98,933,000. The bullion at the same time declined, and was on the 22d October of that year £14,358,000, while the reserve went down to £5,604,000, and the minimum rate of interest rose to 5 per cent."

This is a very interesting sketch of leading events, but the inference that the active exports of 1853 were a consequence of the great increase of currency in the hands of the public appears to be hardly tenable, since the increase was almost entirely to Australia, and was stimulated, not by the bank notes in England, but by the gold in Australia. The desire to send goods to that region, in order to extract its gold, caused a demand for the home currency. The bad success of the adventures to the gold country threw difficulties in the way of returning the promises. The committee proceed:—

"12. In March, 1854, war was declared against Russia, and an expenditure of nearly ninety millions is estimated to have been incurred by England on this account. The foreign payments were largely made in specie, which, to a great extent, was hoarded in the East. Foreign loans were also contracted in London for the purposes of the war. The aggregate trade of the United Kingdom varied little. The bank rate of discount was raised in May, 1854, from 5 to 5½ per cent, and continued at that rate till August 3, when it was again reduced to 5. On the 5th April, 1855, it was reduced to 4½, the bullion then standing at £15,079,000, and the reserve at £8,580,000. The bullion continued to rise, until in June it amounted to £18,169,000, and the reserve to £11,887,000. Before the end, however, of that year, a great change occurred, and on the 27th December the bullion stood at £10,275,000, the reserve at £6,993,000,

while the minimum rate of interest had been raised on 18th October to 6 per cent for 60 days, and 7 per cent for 95 days, at which rate it stood till the following May.

"13. Down, therefore, to the close of the inquiry of 1857, the Bank of England had continued, under the act of 1844, to conduct its business without difficulty. The rate of discount had been raised, and the *echeance* of bills shortened, as the drain for bullion appeared to the directors to render these measures necessary. But neither the failure of the silk crop in Italy, with the bad harvests in France and other parts of Europe, and the commercial drain thence arising, nor the requirements of specie for the military service, nor both these causes combined, had occasioned any important derangement of our monetary system.

"The course of trade may be collected from the exports of the years referred to, viz.:—

1852.....	£78,676,000	1855	£95,688,000
1853	98,933,000	1856	115,826,000
1854	97,184,000	1857	122,155,000

"These exports do not include shipments of stores in government transports.

"14. In the earlier part of the autumn of last year the trade of the United Kingdom was generally considered to be in a sound and healthy state, and in the words of the Governor of the Bank, in reply to the following question:—

"'Was there, in the month of August, any circumstance which caused you to be apprehensive of any reason for raising the rate of discount? Not in the month of August; things were then pretty stationary; the prospects of the harvest were very good; there was no apprehension that commerce at that time was otherwise than sound. There were certain more far-seeing persons who considered that the great stimulus given by the war expenditure, which had created a very large consumption of goods imported from the East and other places, must now occasion some collapse, and still more those who observed that the merchants, notwithstanding the enhanced prices of produce, were nevertheless importing, as they had done successfully in the previous years. But the public certainly viewed trade as sound, and were little aware that a crisis of any sort was impending, far less that it was so near at hand.'

"15. In this state of things, the bullion standing at £10,606,000, the reserve at £6,296,000, and the minimum rate of discount at 5½ per cent, the bank, on the 17th of August, 1857, commenced a negotiation with the East India Company, which ended in a shipment of £1,000,000 in specie for the East The general aspect of affairs continued without change until the 15th September, when the first tidings arrived of the great depreciation of railway securities in the United States, and immediately afterwards of the failure of a very important corporation, called the Ohio Life and Trust Company. Before 8th October, the tidings from America had become very serious; news of the suspension of cash payments by the banks in Philadelphia and Baltimore was received; cotton bills were reduced to par, and bankers' drafts to 105; railroad securities were depreciated from 10 to 20 per cent; the artisans were getting out of employment; and discounts ranged from 18 to 24 per cent. The transactions between America and England are so intimate, and so large,

the declared value of British and Irish produce exported in 1856 to the United States having been £21,918,000, while the amount of securities held by English capitalists in America was by some persons estimated at £80,000,000, that this state of commercial disorder there could not but produce in this country great alarm.

"16. In New York, 62 out of 63 banks suspended their cash payments. In Boston, Philadelphia, and Baltimore, the banks generally did the same. The effect of the American calamity fell with the greatest weight upon the persons engaged in trade with that country, and Liverpool, Glasgow, and London naturally exhibited the first evidence of pressure. On the 27th October the Borough Bank of Liverpool closed its doors, and on the 7th November the great commercial house of Messrs. Dennistoun & Co. suspended payment. The Western Bank of Scotland failed on the 9th November, and on the 11th the City of Glasgow Bank suspended its payments, which it has since resumed. The Northumberland and Durham District Bank failed on the 26th, and on the 17th the Wolverhampton Bank for a time suspended payment.

"17. Great alarm naturally prevailed in London, the center of all the monetary transactions of the world. Vast sums deposited with the joint-stock banks, at interest, and employed directly by themselves, or by the bill-brokers, in addition to other moneys deposited by their other customers, were chiefly held at call; and the bill-brokers are stated to have carried on their enormous transactions without any cash reserve, relying on the run of their bills falling due, or, in extremity, on the power of obtaining advances from the Bank of England on the security of bills under discount. The inevitable result of this system, at a time of commercial pressure and alarm, was, that the banks limited their discounts almost exclusively to their own customers, and began to add to their reserves, both in their own tills and at the Bank of England. It is well known that a periodical disturbance in the reserve of notes at the Bank of England regularly occurs at the time when the dividends upon the national debt are paid. Interesting information will be found in the evidence of 1857 as to the effect of this disturbance in aggravating the panic of 1847. It had no such effect last year. By the 24th October that periodical disturbance was at an end. The public deposits also were in a satisfactory state, amounting to £4,862,000. It is interesting to observe, with regard to the private deposits, that the causes to which your committee have above referred, as affecting other bankers, tend to increase the balances in the Bank of England—the bank of last resort at a time of panic. Thus, for example, the deposits of the London bankers, which, in ordinary times, average about £3,000,000, continued to rise during the commercial pressure, and amounted on the 12th November to £5,458,000. The bill-brokers were compelled to resort to that establishment for assistance, and that to so great an extent, that the principal house went to the bank to ask whether they could obtain discount to an indefinite amount, and actually received on one day, the day on which the Treasury letter was issued, no less a sum than £700,000. Two discount houses failed. Speaking of the general discount market, the Governor of the Bank stated—'Discounts almost entirely ceased in London, except at the Bank of England.'"

In going into the causes of the failures of 1857 and of 1847, the committee, through the evidence they have collected, show very clearly that

an abuse of credit was common to both periods, and some of the worst failures of 1857 were those who had failed and had been helped through in 1847:—

"38. Your committee have before them the particulars of thirty houses which failed in 1857. The aggregate liability of these houses is £9,080,000; of this sum, the liabilities which other parties ought to provide for amount to £5,215,000, and the estimated assets to £2,317,000. Besides the failures which arose from the suspension of American remittances, another class of failures is disclosed. The nature of these transactions was the system of open credits which were granted; that is, by granting to persons abroad liberty to draw upon the house in England to such extent as had been agreed upon between them. Those drafts were then negotiated upon the foreign exchanges, and found their way to England, with the understanding that they were to be provided for at maturity. They were principally provided for, not by staple commodities, but by other bills that were sent to take them up. There was no real basis to the transaction, but the whole affair was a means of raising a temporary command of capital for the convenience of the individuals concerned, merely a bare commission hanging upon it. A banker's commission was all that the houses in England got upon those transactions, with the exception of receiving the consignments probably of goods from certain parties, which brought them a merchant's commission upon them; but they formed a very small amount in comparison with the amount of credits which were granted. One house, at the time of its suspension, was under obligation to the world to the extent of about £900,000; its capital at the last time of taking stock was under £10,000. Its business was chiefly the granting of open credits, *i. e.*, the house permitted itself to be drawn upon by foreign houses without any remittance previously or contemporaneously made, but with an engagement that it should be made before the acceptance arrived at maturity. In these cases the inducement to give the acceptance is a commission, varying from ½ to 1½ per cent. The acceptances are rendered available by being discounted, as will appear hereafter, when the affairs of the banks which failed come under our notice.

"39. The obvious effect of such a system is first unduly to enhance, and then, whilst it continues, to sustain, the price of commodities. In 1857, that fall of prices which, according to Mr. Neave, far-seeing people had anticipated, actually occurred. Tables have been put in by more than one of the witnesses, exhibiting an average fall of from 20 or 30 per cent, in many instances much more, upon the comparison of July, 1857, with January, 1858. It needs no argument to prove what effect such a fall must have upon houses which had accepted bills, on the security of produce consigned, to the extent of one hundred times the amount of their own capital. The witness says—

"'In the case which you are now describing to the committee, these transactions had gone on to the extent of £900,000. The real guaranty was partly produce and partly bills of exchange; to whatever extent that produce was depreciated, of course the liability of the firm to failure would arise, and the capital of that firm to meet such depreciation of produce was about one hundredth part of the whole of their liabilities?—That is so.

"'Do you consider that case to be a fair illustration of the recent com-

mercial disasters which have occurred?—I think it is, though I should mention that in some cases the proportion of capital possessed was larger than that which I have mentioned.

"'In some cases, also, perhaps it might be smaller?—In some cases considerably smaller. In some cases I have known houses come under very large obligations, who had really no capital at all.'

"40. This practice appears to have grown up of late, and to be principally connected with the trade of Sweden, Denmark, and other countries in the north of Europe. One house at Newcastle is described as conducting before 1854 a regular trade in the Baltic. They were not great people, but were respectable people, and were doing a moderately profitable trade. They unfortunately entered upon this system of granting credits; and in the course of three years the following result ensued—viz., in 1854 their capital was between £2,000 and £3,000; in 1857 they failed for £100,000, with the prospect of paying about 2s. in the pound.

"41. For other instances of this abuse of credit, your committee refer to the evidence, concurring entirely in the opinions expressed by the witnesses, that the great abuse of credit is a feature common to the two years, 1847 and 1857, and has been, in their judgment, the principal cause of the failures that took place in those years."

After giving the details of three banks which failed, the Borough Bank, the Northumberland Bank, and the Newcastle Bank, the committee remark:—

"52. Each of these three banks had been in peril in 1847, and though, by the assistance of the Bank of England, they were enabled to surmount it, they fell on the next occasion of severe commercial pressure, under circumstances still more injurious both to their own proprietors and to the public. Two bill-broking houses in London suspended payment in 1847; both afterwards resumed business. In 1857, both suspended again. The liabilities of one house, in 1847, were, in round numbers, £2,683,000, with a capital of £180,000; the liabilities of the same house, in 1857, were £5,300,000; the capital much smaller, probably not more than one-fourth of what it was in 1847. The liabilities of the other firm were between £3,000,000 and £4,000,000 at each period of stoppage, with a capital not exceeding £45,000.

"53. These five houses contributed more than any others to the commercial disaster and discredit of 1857. It is impossible for your committee to attribute the failure of such establishments to any other cause than to their own inherent unsoundness, the natural, the inevitable, result of their own misconduct."

This evidence goes pretty far to show that the difficulties were not general, or the result of radical unsoundness in general business, but the results of individual incapacity, or worse, and were brought to light through the distrust which was general by the accounts from the United States, which induced everybody to "apply the touch" to his neighbor's solvency.

The committee turn very properly to other countries, where a different rule exists in relation to the currency, remarking:—

"55. It will be instructive now to turn to the north of Europe, to survey the condition of countries where, as in Hamburg, the currency is exclusively metallic, and to compare the state of things there with that which existed here under the laws which regulate the currency in this kingdom.

"56. In Hamburg, on the 22d of November, commercial confidence is stated to have been entirely at an end; so that only the bills of three or four of the first houses were negotiable at the highest rate of discount. In the first instance, some of the leading houses and the banks originated a plan for relief, viz., the subscription of about £1,000,000, and the appointment of a committee to give, by indorsement, the credit of this fund to the current bills. At first it seemed that confidence was much restored, but in two days this hope vanished; and on the 25th, the aspect of affairs was again very gloomy. On the 27th, a meeting of the Burgerschaft was held, and a new arrangement was proposed by the Senate for the issue of government bonds on the deposit of goods, funds, and shares, to the amount of £1,125,000. On the following day the feeling of the exchange was better in consequence of this government measure, and of the arrival of considerable quantities of silver. Yet, on the first of December, our consul writes:—'The embarrassments of the mercantile community here still continue undiminished;' and on the 3d—'There is no deficiency of silver in the Hamburg Bank; indeed, the amount in the cellars of the bank is now much larger than it has been at any former period, but a total want of confidence prevents its holders from parting with it.' The government bonds could not be discounted. A loan was ultimately obtained from Vienna; but even the arrival of the amount in specie failed to produce the desired effect, until the Senate reluctantly proposed that it should be intrusted to a secret committee, to be by them lent out on good security. On December 12th, so soon as it was known that, by the aid of the government, the leading houses would fulfill their engagements, the panic ceased. Money at once became abundant, and in about a fortnight the rate of discount for the best bills fell to 2 and 3 per cent.

"57. The information on this subject, relating to the different countries in the north of Europe, which will be found in the appendix, is most instructive. It shows the severity of the disaster there sustained, and also that the real origin of it was the undue expansion of commercial credit; and it confirms the proof that no system of currency can secure a commercial community against the consequences of its own improvidence."

Art. IV.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LVIII.

DAVENPORT, IOWA.

SITUATION OF DAVENPORT—RIVER CONNECTIONS—BACK COUNTRY—RAILROAD CONNECTIONS—WEALTH OF IOWA—LENGTH OF RAILROADS—BUILDINGS IN DAVENPORT—GAS—POPULATION—EXPENDITURE—AGGREGATE BUSINESS—BANKING—ANALYSIS—SALES OF MERCHANDISE—LOCAL BUSINESS—CROPS—WHEAT—BARLEY—GRAIN AND PROVISIONS—COMMISSION BUSINESS—INCREASE OF CROPS—LOW PRICES—MANUFACTURES—BOARD OF TRADE REPORT—LUMBER TRADE—FREIGHT—RIVER TONNAGE—BRIDGE—RAILROADS AND NAVIGATION—COMPARATIVE BUSINESS—THE FUTURE.

Among the cities of the most rapid growth in the Great West, Davenport, Iowa, is one of the most prominent. It is situated on the banks of the Mississippi, which, flowing on both sides of Rock Island, divides Davenport on the west, from Rock Island City on the eastern, bank. The great and fertile country on the western side of the Mississippi, known as Iowa, pours its wealth into Davenport for distribution by the mighty river south, and by the railroads to the East. The latter, in their capacities to carry freight, have long contended manfully with the water courses

of the West, which are so uncertain in their navigable condition; and the markets of the East are more promptly commanded by railroads than by the water communications. The rapid increase of the wealth of Iowa is indicated in the official valuations, which were as follows:—

TAXABLE WEALTH OF IOWA.

1851.....	$28,464,550	1854.....	$72,827,204	1856.....	$164,894,418
1852.....	38,427,304	1855.....	106,895,390	1857.....	210,044,533
1853.....	49,540,376				

There is in the State already 256 miles of railroads, which aid in circulating its vast natural products, and in fostering the growth of the noble cities, which, like Davenport, are, so to speak, the results of the concentration of that wealth. The rapid growth of such cities of the West requires a great deal of capital to prepare for business, before the actual products of the surrounding country are ready for market. As an illustration in the case of Davenport, we gather from a condensed report on the subject, that since August 1st, 1856, there have been erected in that city over thirteen hundred houses; twenty-five squares (over two miles) of streets have been graded and macadamized; sixty-eight squares (over four-and-one-half miles) of gas pipes have been laid, and gas street-lamps placed throughout the city; one hundred and ninety-three squares (over thirteen miles) of sidewalk have been made. The population of the city is estimated at not less than eighteen thousand.

The amount of capital required thus to build a city on what was lately wild land is very large, and it is obvious can be fed only by a continued current of migration in that direction. The building of railroads has scattered a great deal of money in the country, which has aided in developing the natural wealth and promoting business.

The footings in some of the principal branches of trade for the year ending December 31st, 1857, show an aggregate for the business in the same of $14,485,812 24. Of this amount—

Banking and exchange has been	$8,539,744 28
Sales of merchandise	2,628,602 57
Sales of grain and provisions	1,158,000 00
Sales of consignments and forwarding	353,000 00
Manufacturing not estimated in sales	751,030 00
Freight and cartage	450,029 00
Lumber, doors, sash, etc	555,406 89

The banking department shows an aggregate of—

For exchange	$6,616,737 34
For discounts	1,923,006 94

If we analyze the different branches of business which furnish the above aggregate of sales of merchandise, we have results as follows:—

SALES OF MERCHANDISE AND THE STOCK ON HAND.

	Sales.	Stock.		Sales.	Stock.
Agricultural implements	$25,000	$12,000	Jewelry, watches, etc...	$27,000	$18,500
Boots and shoes.....	72,000	34,000	Leather & saddlery....	87,000	24,200
Books, wall paper, etc..	34,000	12,000	Millinery.....	42,000	12,700
Bakery, confectionery...	8,000	3,000	Drugs, paints, oils, etc...	70,000	35,300
Clothing.....	164,700	61,000	Queensware.....	25,000	18,000
Dry goods.....	600,902	164,500	Stoves, &c.....	125,000	44,000
Furniture, mattresses, & carpeting.....	89,000	44,300	Assorted merchandise..	116,200	16,700
			Tobacco and cigars.....	59,000	14,000
Groceries	771,800	163,000	Wines and liquors.....	13,500	7,000
Hardware, iron, & nails.	264,500	120,500			
Hats, caps, and fur.....	34,000	14,000	Total stock on hand.....		818,700

The monetary difficulties which occurred so suddenly in October, 1857, caused a falling off in all branches of trade. In no department have the figures been so affected as in the banking. During sixty of the last ninety days of the year 1857, exchange was not procurable at any price, or under any circumstances, except in very small sums. Notwithstanding this, local business suffered far less diminution than was at first apprehended. When money became scarce at the East, as a matter of course every available dollar was ordered home from every point of the West, and the supply of exchange was altogether inadequate to the demand, although large sums invested in land could not be realized to send home.

With an encouraging activity in their affairs and operations, the merchants of Davenport have slowly, but steadily, met their liabilities, at home and abroad, with a manifestation of promptness that, under the circumstances, has received the hearty approbation of their correspondents, and preserved intact the high standing they had previously maintained.

Careful inquiries have developed the fact beyond dispute, that during the last few month there has been important accessions to the trade of the place, from various sections of the country hitherto tributary to other points. It is presuming very little to say, that the acquaintances thus formed cannot but be mutually advantageous.

The amount included above, third in rank, is the aggregate sales of grain and provisions. These are valued at low prices, and may be analyzed as follows:—

	Quantity.	Value.		Quantity.	Value.
Wheat .....bush.	1,019,000	$509,000	Potatoes.....bush.	20,000	$5,000
Barley.....	34,000	13,600	Onions.....	25,000	12,500
Flour.....bbls.	175,800	879,000	Pork .....bbls.	3,500	52,000
Ship stuff, etc....tons	8,640	129,600	Bacon.....tierces	1,280	32,000

Of the wheat received during the comprised period, there was manufactured into flour 879,000 bushels. The number of hogs packed was 13,000. The estimated value of the same, after allowing for the wheat, etc., manufactured, is $1,158,000.

The commission and forwarding business, with an aggregate of $353,000, shows an advance for freight and charges of $150,000. The following is a list of the different branches of manufactures:—

Agricultural implements.....	$49,000	Paints, oils, etc.....	$4,000
Boots and shoes	20,000	Stove furnishing, etc.....	10,000
Book-binding, printing, etc.	108,000	Cooperage.....	105,130
Bakeries and confectionery.....	35,000	Lumber, sash, etc.....	235,154
Clothing.....	28,000	Flour, feed, etc.....	957,000
Carriages, wagons, etc.....	87,000	Hog product.....	113,750
Furniture, mattresses.....	67,000	Sundry manufactures.....	32,909
Plows, castings, and iron work.	205,000		

In no year were the crops of the country more redundant than in the past; yet, owing to the great falling off in price as compared with the former years, the receipts have fallen far short of the amount due. During the early months of the year, prices ranged at a point that offered great inducements to the producer, and large quantities of seed were planted. The exuberant crop, with a falling off in demand, followed by the financial troubles, created such a sudden and heavy diminution of price as to induce growers of grains to sell no more than they were compelled to do.

The opening year, however, offering no assurances of an improvement, there has been an increased disposition to sell, and consequently a marked improvement in receipts. The crops for the present year are large, bu with the absence of all foreign demand, and a subsidence of the loca demand at the West, which depended on the large railroad expenditures, prices are necessarily low, but it is an evidence of returning health in trade that the low prices are availed of.

There are few points in the West where the manufacture of flour is more largely engaged in. The value of this department alone approximates one million dollars, while the brands of the different mills enjoy an enviable reputation in foreign markets.

The crop of barley last year promised a great abundance, but the result of heavy rains at the period of early harvest was a bitter disappointment and loss to the farmers, and a greatly deteriorated quality of grain. Much of the gathering had grown or dampened, so that the prices ranged necessarily from the low quotation of twenty cents per bushel to fifty cents per bushel.

In common with other sections of the country, there has been an extensive disease among Neoshannock potatoes; pinkeyes, appearing the most healthy, have been most sought after. Large quantities were exported, but, stimulated by the excessive prices of last spring, the crop was heavy. There were many held in the country, in the hopes of advanced prices upon the resumption of navigation in the spring.

The commission and forwarding business shows an aggregate of over one-third of a million, and is rapidly increasing in importance. As the Mississippi and Missouri Railroad is extended, so may the quantity of products and the resulting business increase, and the same, whether seeking an Eastern or Southern market, must, on transhipment, give employment to a large amount of labor and means.

It necessarily follows that, at a point where concentrates the natural products of a fertile and rapidly-peopling region of country, and capital and settlers flow to take part in the sale and distribution of that produce, manufactures spring up readily to supply local wants, as well as those which the producers of farm produce require. In this connection, I. P. Coates, Esq., in his report to the Davenport Board of Trade, remarks:—

"Favored, as we are, by nature in our location, with every advantage for the convenient association of the different agencies required in the transformation of raw material into the necessaries of society. it requires only the most casual observation to discern our future importance; scarcely one stranger passes without being impressed with this great fact, while to those who give more attention to the subject, favorable results geometrically increase.

"Already we have attained importance; already we have arrested and given employment to capital seeking profitable investments. The success that has attended efforts already begun, connected with the facility of furnishing the raw material—be it lead from our own borders, copper from Superior, iron from Missouri, lumber from Wisconsin or Michigan, hard wood from Indiana, cotton from the Southern States, all of which can be brought to our door without reshipment, added to coal for fuel from meadows and fields whereon we raise abundant supplies of food for the thousands whose labor is transforming the crude materials we gather—cannot fail to favorably attract the attention of the capitalist and citizen, and induce to a citizenship among us a portion of the best talent and energy of the country. Already are we conceded the superiority of manufacturing facilities, and already is a wide area of territory dependent upon us for those supplies we can more economically produce than import. Every mile

of railroad that is completed to the West, as well as every acre of raw prairie that is broken for cultivation, increases our manufacturing importance; in no age has the march of emigration been more rapid and continual, and in no case has a larger percentage of population accumulated than in our own State. Legitimate causes produce legitimate results. No city has had a more rapid, vigorous, and continued improvement than our own, and no improvement has been founded upon a more permanent basis, viz., manufactures.

"There is scarcely a branch of this class of industry that might not be entered into successfully. Mills, machine shops, etc., are already established, yet these can be duplicated, and the supply not exceed the demand. Cotton and woolen mills, paper manufacturers, foundries, shops for agricultural implements, and all the various kinds of handicraft, will meet a welcome and support upon the occasion of their advent."

The expense of living is moderate, and the price of real estate governed by its value for actual use. The estimate for lumber shows the following aggregates:—

The receipts have been in feet	22,213,216
The number of lath received and manufactured	6,795,000
The number of shingles received and manufactured	5,214,750
The number of pickets manufactured	31,468

Of the receipts, 14,775,216 feet were by river, and 7,438,000 feet by railroad. The amount of freight and charges paid for the year was $450,029.

Of this, the amount of railroad charges was	$401,470
And the amount of river charges was	48,559

The aggregate exports and imports for the same time were, as nearly as can be ascertained, 93,683 tons. Of this amount, 40,584 tons are exports, and 53,099 tons imports. Of the exports, 34,157 tons were by railroad, and 6,427 tons by river. Of the imports, 47,029 tons were by railroad, and 6,070 tons by river.

Total river tonnage	12,497
Total railroad tonnage	81,186

The total number of steamboat arrivals and departures was 1,587. Of this number, 960 were boats running exclusively to Davenport, and 627 transient boats. The number of boats that passed the railroad bridge was 1,067, and the number of rafts 600. The number of collisions of boats with the bridge was 25; of which 8 sustained injury, and 17 sustained no injury. The number of rafts colliding with the bridge was 30; of which about two-thirds sustained injury, and one-third no injury. In no case was the injury sustained serious, with the exception of a few rafts.

The river opened on Thursday, February 26th, the ice moving slightly. It again became gorged on the 28th, and remained stationary until March 25th, when it again brook loose, and permitted boats to reach the landing. On the 25th of March the ferry commenced regular trips for the season. The first raft passed down the 18th of March, and the last one the 18th of November. Of the rafts passing down the bridge more than one-half were manufactured lumber.

The bridge across the river has been much complained of by the boat interest, particularly by the citizens of St. Louis, and the discussion has ended in a legal decision against the bridge. The complaints against the bridge seem, however, to partake of the nature of the complaints by canals against railroads. More than one State officer in New York, Ohio,

and Indiana have asked the several Legislatures to hamper the railroad traffic, in order to force business to remain with the canals. Railroads are a modern invention, and have been found more serviceable to business as a means of prompt and cheap intercourse. If old means of communication cannot hold their way, it by no means follows that law or custom should favor them at the expense of new routes more approved by the public. The comparative business of Davenport by river and railroad was as follows:—

RECEIVED DURING THE YEAR BY RAILROAD.

Lumber	feet	7,436,000	Wheat	bush.	183,227
Shingles	No.	3,870,000	Pork	lbs.	362,285
Railroad iron	tons	1,593	Pork	bbls.	3,956
Coal		13,095	Machinery	lbs.	183,436
Oats	bush.	33,843	Flour	bbls.	4,410
Barley		4,688	Wool	lbs.	18,306
Corn		75,834			

Of the above, the entire estimates for lumber, shingles, railroad iron, coal, and corn were received by the Chicago and Rock Island Railroad; and the entire amount of wheat, pork, flour, and wool were received by the Mississippi and Missouri Railroad. The remainder was received as follows:—

	Oats.	Barley.
Chicago and Rock Island Railroad	29,380	2,316
Mississippi and Missouri Railroad	4,463	2,372

In addition to this, there passed over the Mississippi and Missouri Railroad:—

Flour	bbls.	29,302	Corn	bush.	46,258
Potatoes	bush.	2,996	Wheat		235,217
Oats		4,330	Wool	lbs.	25,416

The total number of pounds passed over this road for the year was 130,695,566.

While the receipts by river have been large and interesting, no reliable records of the different articles exist upon which tables can be founded. The amount of lumber received in feet was 14,775,216. The following is a list of a portion of the exports by river and railroad:—

		River.	Railroad.	Total.
Wheat	bush.	30,072	57,936	94,008
Barley		18,888	2,279	20,667
Flour	bbls.	19,819	86,500	106,319
Coal	tons	.....	5,647	5,647
Lumber	feet	9,000	16,039,112	16,048,112
Shingles	No.	.....	5,890,000	5,890,000

In addition to the above, there was shipped—

Onions	bush.	18,520	Furniture	packages	961
Barley		16,372	Merchandise		1,565
Corn-meal		1,400	Groceries		860
Oats		376	Queensware		63
Ship-stuff	tons	976	Hardware		659
Lard	bbls.	297	Plows		567
Butter	packages	138	Agricultural implements		520
Bacon	tierces	1,280	Sash	bundles	90
Pork	bbls.	1,372	Pork	bbls.	254
Hides	No.	1,713	Seeds	sacks	100
Wagons and carriages		26	Wool		11
Fruit	bbls.	32	Gunnies	bales	291

If the business of Davenport, with that of other Western cities, has suffered during the past year through a collapse in the usual operations of business, the future is no less promising, since the vast and fertile plains, which have in the last twenty years been so attractive to thousands of emigrants, are each year presenting greater attractions, in the abundance of their products, the amelioration of hardships through longer settlement, and the pressure of population in the old States. If the spirit of speculation has gone too fast for the moment, it is evidently only a breathing space, when the race will be renewed with redoubled vigor.

Art. V.—AN EAST INDIES TO THE UNITED STATES.

EUROPEAN POPULATION — NO GREAT WARS — MEN ABSORBED BY COLONIES — EMIGRANTS MORE VALUABLE THAN SOLDIERS—WISE GOVERNMENT POLICY—NO FIGHTING-MEN—VALUE OF COLONIES—HARDSHIPS OF THE WEST—IMPORTANCE OF ISLANDS—POVERTY OF THE PROFESSIONS—WANT OF UNITED STATES COLONIES—IMPORTANCE OF SOUTH AMERICA—BRITISH GOVERNMENT ENTERPRISE—PROSPERITY OF AUSTRALIA.

It is generally conceded that a scarcity of men in a country is a sign of its prosperity. There was a time when England could raise a much larger army than she could now, yet the increase of her population has been greater during the last forty years than it ever was before within the same time. The cessation of hostilities with European powers is the cause of this; as at this hour her finest men were picked up by the recruiting sergeant, and sent to the fields of slaughter. No others are fit to die. But although England, within the last few years, has been at war with half the human race, and crying out to 250,000,000 of people, "*no quarter*," her great wars have ceased. Within four years she has opened her batteries upon four of the most powerful leading empires of the earth, namely:—Russia, Persia, China, and India. Persia, containing a population of 10,000,000, although not at present a first-rate leading power, yet at one period she was a terror to the eastern nations. Cyrus, the Persian, conquered Babylon and the great Babylonian Empire. King Nebuchadnezzar, with all his vast armies, provinces, and powers, crumbled beneath his sway, and it is this nation that England (immediately after the fall of Sabastopol, and the greatest siege that the world ever saw) crushed into subjection. Then followed China and treacherous child-killing India, which, with all their advantages, are so far conquered that the result is known, and the news from the scenes of strife cease to be interesting.

We, in modern times, can scarcely fancy an army of 75,000 men, 10,000 cavalry, 16,000 camels, 12,000 yoke of oxen, and several thousand elephants, all moving over vast deserts, subjecting themselves to a scorching sun, thirty degrees hotter than in the United States, and a dust and thirst to many insupportable, while a flying enemy but leads them on. But it is not the wars with those distant nations that have rendered this scarcity of men in England—it is her great prosperity.

And when we read silly articles relating to England not being able to raise soldiers, and of its being a sign of her downfall, we cannot but feel surprised at the ready-made calculation, but still more justly at our own indolence in not calculating for ourselves. England's wise policy in ex-

tending her possessions over distant lands has, within the last forty years of peace, attracted the attention of her surplus population; consequently, she has had other fields and other employments for her men, and instead of shedding each other's blood they have cleared the forest away, and vast sheep and agricultural regions are now the fruits of their enterprise and labor. And so long as England has the means she will prefer hiring soldiers, ready made, to killing off her own men, who are encouraged to emigrate to new colonies, and build up new and great nations, to create a trade with their native land.

If an English soldier is worth £100, what, by the rule of three, is an emigrant worth? While, therefore, France and other continental nations will furnish bone and sinew for the battle-field, just so long England will continue to pay them, and spare her own flesh and blood for more noble, if not more glorious, purposes. No matter to what clime an emigrant ship takes her human freights of Anglo-Saxon and Celtic blood, England benefits in the end. If an English soldier costs £100, it is a matter of economy to hire the ready-made soldier, and give him a shilling a day while he is doing the *job—no fight, no pay.* Thus England has built up for herself, far away from home, great and prosperous nations, which she supplies from her factories, &c., and receives a return in gold, silver, and other productions of foreign parts. Her heretofore wise policy is now turning into her coffers countless millions. It was the policy and enterprise of the government, and not of individuals. She held, settled, and taxed the United States, but what of that. Her object is obtained. Her vast shipping has a vast country to open her commerce to, and send six millions' worth of productions to every year. Then the thousands of men employed on the seas, all contribute largely to make her the most powerful nation on the earth.

It is a boast of many leading papers, as well as individuals, that the United States could raise an army far more numerous than that of England; but let us look into this. Suppose it became necessary to send an army of 100,000 men to fight a leading European power, where would these men come from? Certainly the uniform companies, excepting a few, could not go, as they are men of family and business, and have other things to do. If the regular army could be swollen to the extent required, it would be from the ranks of the thousands upon thousands who are now drifting about the cities, professing every trade, business, and profession.

How far out of New York need a man fire off a 24 pounder to reach the ears of 150,000 idle men, who know not what to do or where to go to? This is a bad state of things, and it is an idle boast; and were it not that this dense body is composed of men of various nations, tongues, and ideas, it would unite in rebellion against the powers that be. In the event of an invasion, America might raise a large army; on the same occasion, so could England. But the invasions of England are over, those of America yet to come. America has never been called upon to raise a large army. We may talk of *the far West*, and the vast regions yet unclaimed; and why can't the surplus population go there? But this is all "*colly* west." The answer is simple—there is nothing to do.

One small island in the seas, or one small colony abroad, would create more trade and business than fifty times the same extent at home. There is a foreign field to be opened, must be opened, for the benefit of the vast army of professors, artisans, and laborers, who cannot till the ground or

bury themselves and their families in dense forests, and *live half dead* with chills and fevers. There is an army of martyrs now in the West, but no employment for the shipbuilder and the thousands of men whom the building of a single ocean steam vessel would create. It is all well enough to say to the soldier, he must plow, and the farmer, he must fight, but we cannot reverse the order of things. In a single family, we find different dispositions and turns for business, professions, and trades. Men's abilities vary; one son may work hard at his bench or plow, from sunrise till sunset, while his brother wont work at all to suit his father's ideas, and is consequently sighed for and called a good-for-nothing fellow. But in what way? Is it because he does not labor? Surely not. He may go through more *mental* labor in an hour, than his brother would in a week. He is born for something else, but his father has not yet found out what he is fit for, or has no field for his ambition. But he is on the sea-shore, and *fools* his time away scooping out little model boats. His father cultivates an island two or three miles out at sea, and it is necessary that he should have a boat and a man to sail her, so as to carry on the business, as it increases, between the little rising settlement and the main land; and *this idle, loafing, good-for-nothing son* builds boats and sails them, and in the course of time is the leading builder in the place; and were it not for the cultivation of the island, he might have remained all his life-long a tax upon society.

Thus we have the government of the United States. It is the *father*, and we are its sons. It has hundreds and thousands of idle men living on each other, not knowing where to apply for honorable employment; men of every rank, fit and capable of forming a great nation, and rearing it up to pride and power. Thousands of these men are *born citizens*. It is all boy's play—this coasting, drifting from *inlet* to *inlet*, declaring that we have resources within ourselves, and Western lands to settle and clear away. But it does not furnish employment for the millions; for those who have served their time at the *bench*, the *anvil*, the mould-loft, and the helm, besides the various professions, the possessors of which regret that their fathers had not sent them to learn trades.

The educated man in America may want. There is no field for his ambition. The whole land is overrun with students, unable to procure practice. The theological student, with a family, is offered $500 per annum, while the tradesman, who cannot or need not read, gets $600. It was told me by a gentleman of standing that "we are not in the habit of giving high salaries in this country; and that a clergyman, thirty miles from New York, could support a large family very well on $500 a year, and house found him; that he had a son in New York getting $1,000, and $75 from some other quarter, and that it was quite ample."

Now, if a poor young man, working hard to support himself, has any right to support a minister of a country parish, composed chiefly of wealthy men, I relinquish my right to defend him; and it is no wonder that so few young men embrace the profession. Now, in the face of all this, the United States want to colonize some vast region—some East Indies must be opened to create a field for enterprise of every class. The government *must move* in it. We have a vast region within *ten days* of us, as rich, if not richer, than the Indies. This region is South America. Of its proximity, extent, past and present wealth, and future prosperity, there can be no shadow of doubt. And if there was the slightest encouragement

on the part of the government, (which must move in the matter,) there are thousands upon thousands ready to go there. Talk not of England's sloth and of American "*go-a-head-a-tiveness.*" Look back at the settlement of England's colonies, of the United States, of Australia, for instance, to which the government sent vessels loaded down with living freight of both man and beast, and "bid them be fruitful and multiply and replenish the earth," "and it was so."

Look back at the colony seventy years ago, and look at it now. The richest known island in the seas, larger than the whole of the United States. And when we reflect upon the departure of the first English ship, with its living weight of flesh, and the arrival of the last, with its dead-weight of gold, we will discover that it was a small card in the hand, but now is a trump on the table.

South America, it is true, cannot boast of its elephants and camels, but it can of one of the richest Indian empires that the world ever possessed, and a monarch who could measure his gold by the *cubic yard* and not by the *ton;* and it is this region of gold, silver, and precious stones, besides all the productions of the tropics, that I propose opening, honestly and fairly, and making it an *East Indies to the United States.*

Art. VI.—GARBLINGS: OR, COMMERCIAL COMMODITIES CHARACTERIZED.

NUMBER XI.*

TEA.

CHARACTER OF THE PLANT—HOW CULTIVATED—TIMES OF GATHERING—VARIETIES OF TEA—PROCESSES OF PREPARATION—SCENTING—CHARACTER OF THE CHIEF VARIETIES—VARIETIES OF GREEN AND BLACK—USES AND CONSTITUTIONAL EFFECTS—NATIONAL USE—UNIVERSAL INFLUENCE OF TEA—CHEMICAL CONSTITUENTS—PHYSIOLOGICAL EFFECTS—NUTRITIVE PROPERTIES—THEINE—CLIMATIC ADAPTATION—SUITED TO THE UNITED STATES—COUNTERFEITS AND ADULTERATIONS—POISONS, AND HOW TO DETECT THEM.

TEA consists of the dried leaves of the *Thea Sinensis*, an evergreen shrub, belonging to the family of Camellias, which are native to China, Japan, Cochin China, and the southeastern part of Asia. It is a hardy plant, and, in the uncultivated state, grows to the height of fifteen or twenty feet, but, as cultivated in the tea-fields, rarely ever grows higher than six or eight, and generally not more than four or five feet.

The leaves are alternate, eliptical, pointed, toothed and firm, smooth, shiney, and deep green; from one-and-a-half to four inches long, and from half an inch to an inch-and-a-half wide. The flowers are white and large, borne on short peduncles, single or united in small clusters at the axils of the superior leaves.

It is generally propagated from seed, and arrives at maturity in from two to three years, when it is capable of yielding two or three crops of

* For No. 1, see *Merchants' Magazine* for July, 1857, (volume xxxvii., pp. 19–23;) for No. 2, see same for August, (pp. 166–171;) for No. 3, see same for September, (pp. 298–303;) for No. 4, see same for November, (pp. 542–554;) for No. 5, see same for January, 1858, (volume xxxviii, pp. 43–50;) for No. 6, see same for February, (pp 175–183;) for No. 7, see same for March, (pp. 292–302;) for No. 8, see same for August, (vol. xxxix., pp. 164–175;) for No. 9, see same for September, (pp. 321–327;) for No. 10, see same for October, (pp. 415–420.)

leaves, and sometimes four, annually. The first gathering takes place in early spring, the second about the 1st of May, the third in June, and a fourth in August. The first gathering produces the finest variety of tea. It chiefly consists of the young leaf-buds and small leaves, from which the best *Pekoe*, and the finest varieties of black, are made.

The later gatherings consist of the larger and older leaves, which, by long exposure on the plants, have lost part of their flavor, and become less valuable. Hence, it is found that the finest teas usually consist of the smallest leaves. At the first gathering the leaves are slender, smooth and even-edged, twisted, and downy. Second gathering takes place just as the leaves begin to have veins, and their edges delicately notched. At the third gathering the veination is fully developed, the edges coarsely notched and wavy.

Until late years botanists designated several species of the tea plant, but now it is generally conceded that all the varieties of tea are obtained from one and the same plant, the differences in the tea from which depending wholly upon the soil, climate, weather, age of the leaves, and mode of preparation.

Varieties.—Black teas are mostly produced from plants growing on the slopes of hills and mountain sides, a range of which, called *Bohea* mountains, being the origin of the variety of tea known as such. On the other hand, *green* teas are generally produced from plants grown on cultivated and manured plains. Other qualities depend upon the processes of preparation, in drying, rolling, etc.

Bohea is usually prepared from the full-grown leaves of the third gathering, and is, therefore, the commonest and cheapest variety. Souchong, Congou, Padre-Souchong, Caper-Souchong, and Pekoe—which consists of the first gathering, and hence called "flowery"—are gathered early, and of finest quality.

The principle varieties of *green* teas are, Young Hyson, Hyson, Hyson-skin, Twankay, Imperial, and Gunpowder. This last, in green tea, corresponds to Pekoe, in black. Imperial, Hyson, and Young Hyson are of the second and third gatherings. Hyson-skin chiefly consists of the refuse of other varieties, or is produced by a fourth gathering.

Processes of Preparation.—Tea leaves in their green state contain an acrid principle, which may be dispersed by heat. This is accomplished by the process of roasting, and for this purpose a large iron dish, called a *kuo*, is used. The leaves are first dipped into hot water, and after drainage they are spread upon the *kuo*, which is at first only raised to a moderate degree of heat, and only has the effect of rendering the leaves soft and pliable. They are then removed and submitted to the first rolling. For the very finest quality, each leaf is rolled separately, but more commonly the leaves are spread upon large tables covered with straw mats, and rolled by rubbing them with the hands, or between the palms.

This operation is continued until the leaves become cold, when they are again submitted to the *kuo*, and the process repeated. The best kinds are heated on the *kuo*, and rolled three or four times before they are deemed of maximum quality. For *green* teas, this completes the preparation of the finest varieties. Inferior qualities are subsequently flavored.

Black teas require an additional process, viz., to be heated in sieves over a hot charcoal fire. This has the effect of more perfectly driving off the acid principle, and rendering the leaves drier and more brittle.

As thus prepared, the finest early gatherings are, when last from the *kuo* and sieves, before getting cold, packed for exportation. But the quantity of this is very small.

Scenting.—By far the larger quantity of tea known in commerce has been aromatized or scented. A knowledge of this process, and the materials used in it, was, until very recently, kept secret from foreign nations. But it is now generally known that the Chinese employ for this purpose certain rare vegetable productions, which have the effect of imparting desirable flavors to tea, without in anyway affecting its natural properties. And some of the teas thus treated are known to be among the most eagerly sought after.

The only substances known to foreigners, with which the Chinese flavor tea, are the flowers of the following plants—a species of *chloranthus*, called by the Chinese *Chu-Lan;* the *Gardenia florida*, or *Pac Sheem;* the *olea fragrans*, or *Ruy fa;* and *Jasmimum Sambac*, or *Mos-Sy-Hoa.* As already remarked, these plants are all scarce, even in China, where they are native; their use, therefore, is in every way calculated to enhance the value of the tea in which they are used, notwithstanding the Chinese themselves, as well as all other persons who have had the opportunities of judging, agree in the opinion that only common teas require scenting, and that, however exquisitely this process may be accomplished, the very ultimatum of success is only, after all, a faint imitation of the finest Souchong, the natural flavor of which being far more delicious than it is possible to communicate to an inferior variety.

When tea is about to be scented, it is taken hot from the roasters and put into a chest in a layer of two or three inches deep; upon this a handful of freshly gathered *Chu-Lan* flowers are strewn. Then another layer of tea, and so on until the chest is full. It is then tightly closed, and so kept for twenty-four hours, on the expiration of which time the chest is opened, and the tea and flowers thoroughly mixed and submitted to the drying process in sieves, over a charcoal fire, until the flowers become crisp, when the whole is removed and the flowers sifted out. If the tea is found to be sufficiently flavored the process is now closed; if not, the operation is again repeated.

The tea thus prepared is mixed with others, in the proportion of about one part of the scented to twenty of the plain, when the mixture is moderately treated in the *kuo*, and immediately afterwards, while warm, packed for use or exportation, and is known as *Cowslip Hyson.*

Black teas are also scented with *Chu-Lan* flowers, but in a different and more expensive manner, as it takes a larger quantity of the flowers. The flowers are first carefully roasted, so as not to burn them, and then reduced to a fine powder. This is sprinkled over the tea during the process of the last roastings, previous to packing. Some of this constitutes choice varieties of Souchong or Caper teas, and the Tet Siong. The Pac Sheem flowers are used for scenting a still more exquisitely fine Souchong, which is chiefly used for diplomatic presents, and rarely found in commerce. Ruy-fa and Mos-Sy-Hoa are also exclusively used for scenting black teas, of Souchong flavors.

Character of the Chief Varieties. Black Teas.—*Pekoe.*—This is the finest, and has most aroma. The leaves are slender, of a dark silvery color, covered with a light silky dust; ends speckled with gray, black and white spots. Odor agreeably aromatic; infusion of golden-yellow color; taste somewhat similar to the flavor of fresh hazel-nuts.

Congou.—Leaves thin and short, of a grayish-black color; infusion clear, strong, and agreeable.

Pouchong.—Leaves large, long, and tightly rolled, mixed with a large quantity of leaf-stocks; odor sweet; infusion green.

Souchong.—Leaves larger than Congou, but not so large and long as Pouchong, thin, and rather broken; infusion clear, yellowish, and sweet. It is the strongest of black teas.

Bohea.—Leaves of all sizes, with fragments and leaf-stocks; of a grayish-green color, rolled longitudinally and crosswise; very dry and easily broken; infusion redish, of a somewhat smoky taste. If let stand, deposits a blackish sediment.

Green Teas. *Hyson.*—Leaves long, straight, spirally twisted, and firmly rolled, but dry and easily broken; odor sweetly aromatic; infusion of clear, citron-yellow color. It is the most esteemed of all green teas.

Gunpowder.—This is distinguished from Hyson by being in smaller particles, still more tightly rolled, but less easily broken; of dark green color; infusion clear, golden green.

Imperial.—Much like Gunpowder, only in larger grains, and very hard; of silver-green color, and some of its grains resemble pearls.

Hyson Shoulong.—Resembles Hyson, but more fragrant.

Hyson-junior, or Yu-tseen.—Is composed of small delicate leaves, nicely rolled, and very crisp; of yellowish-green color; odor agreeable, resembling violets.

Twankay.—Large yellowish leaves, badly rolled, and strong odor; infusion limpid, bright yellow; sweet, rough taste.

Hyson Skin.—Leaves yellowish brown, irregularly rolled; odor nearly null, and of ferruginous taste; infusion bright yellow, and turbid. It is the Bohea of green teas.

Uses and Constitutional Effects.—Tea was first known in Europe by being taken there from India by the Dutch in 1610. It was introduced into England by lords Ossory and Arlington, from Holland, in 1666; and being much admired by the nobility, it was imported from thence, and generally sold for about 60 shillings per pound, and until the trade was taken up by the East India Company. *Green* tea was first used in England in 1715. Our colonial ancestors brought their tastes with them, and finding the conditions of the American climate such as to promote the use of a beverage which imparted hygienicle benefits, tea appeared to them as one of the first necessities of comfortable digestion, which the lordly tea-lovers of England thought colonials had no right to enjoy; therefore they were taxed for venturing to indulge in the Celestial drink! Whereupon, the issue is well known. The great Atlantic, which was first set simmering on the shores of Boston and New York, was converted into a foaming and fuming tea-kettle, that at last boiled over, and so dreadfully scalded the *impost*-ers, as to require the use of the most potent revulsive known in the healing art of national discords. The burn has never perfectly healed, and it is doubtful whether it ever will; for, admitting the well-known properties of tea to promote nervous excitement, it is a homeopathical fact that from the year 1773, that most potent and powerful drug, *theine*, has been diffused through the oceans and seas of the world, and by the flowing and ebbing of tides and rivers, and by the infinitesimal division of the particles of watery vapor which have been distilled and redistilled in the mists and clouds of the universe, all

nature is now under the influence of tea; which, my dear reader, accounts for the go-aheadative propensities of Young America.

Tea chemically consists of mucilage, extractive, resin, gallic and tanic acids, and an alkaloid called theine. It has, from the time it was first made known to civilized nations, been considered by some a powerful poison, which, though irregular, slow, and uncertain, is nevertheless likely to break out—as above demonstrated. The poisonous property is attributed to the alkaloid theine, which, in the strongest tea reduced to the nicest chemical analysis, is found to exist in the proportion of forty-six-one-hundredths of a part in a hundred. It is said to possess exhilarant properties. Physiologically, tea, coffee, and tobacco possess the remarkable quality of retarding the waste of the system, and so diminish the demand for food, and make a limited amount go further. To the majority of people, the habitual use of tea is of incontestible advantage. It is decidedly favorable to digestion for healthy persons, and frequently remediable to dyspeptics. It develops a slight degree of excitation, and if taken in large quantity tells particularly on the nervous system; hence, it is apparent that persons of excitable temperament, at least, do not need tea, and may be injured by it. To the oppositely constituted, however, it makes the blood circulate more smoothly, promotes digestion and cutaneous exhalation, and stimulates the intellectual faculties, while, as already remarked, it renders the necessary quantity of food smaller, which Liebig and other distinguished chemists attribute to its possessing positively nutritious properties.

The common way of taking tea everybody is familiar with; but in Japan, among the wealthy, a more ancient mode is followed. The leaves being first ground to powder, it is infused in hot water for awhile, and afterwards whipped with a split bamboo till it creams, when they drink both the infusion and powder, as coffee is used in many parts of Asia; when it is said "to temper the spirits, harmonize the mind, dispel lassitude, and relieve fatigue; it awakens thought, and prevents drowsiness; lightens or refreshes the body, and clears the perceptive faculties."

Chemists look for the properties of tea according to its elementary constitution; but the fact is, that, however active the ingredients might be under other circumstances, they are so nicely balanced in tea that, when taken in their combination, the effects of no one of its constituents are particularly pre-eminent. Tea can never be employed for its tanin, nor injurious on account of the amount it contains. The same may be said of theine in a still lighter degree. Theine is a feeble base, precipitated by tanin alone from its solutions, and does not, in reality, concentrate any of the active qualities of tea, it being only an isolation.

The prevalent discrepancies regarding the effects of tea on the constitution are wholly due to the different temperaments of individuals, whenever such temperaments are specially marked; and the same may be said, too, as regards the differences between black and green. When employed in moderation, the particular variety may safely depend upon the taste and experience of the consumer.

Climatic Adaptation.—The tea plant flourishes over a wide range of latitude and degree of elevation. It grows luxuriantly in the climate of Pekin, in the latitude of 40°, and equally well in the vicinity of Canton, on the verge of the tropics. The best tea, however, is produced in a mild, temperate climate, the country about Nankin producing better tea

than either Pekin or Canton. But in any case, the tea plant is found to require a rich sandy loam, in order to bring it to perfection. Japan appears to be even more favorable to the growth of tea than China. In Japan it is planted around the borders of fields, without much regard to situation or soil, while in China chiefly middle grounds have to be selected, and much order observed in distance and cultivation—the plants standing about four feet apart.

By experiments which have been made of late years in South Carolina, tending to prove the perfect climatic adaptation of parts of that State to the growth of tea, and considering that the time cannot be long before the Chinese will form a much more considerable proportion of our immigrants than heretofore, there is just reason to believe that ere long tea will become an important agricultural product of the United States. In respect to latitude, elevation above the level of the sea, and other circumstances which modify the climate, our Southern States singularly correspond to those regions of China and Japan which are known to produce the best tea.

Counterfeits and Adulterations.—It is proper in this connection to state, that in order for tea to retain well its properties, it should be kept as free as possible from all moisture. Besides which, sea or ship air exercises a particular influence on the quality of tea, which ultimately destroys its aroma. The writer has frequently observed the result of this on the very best qualities of tea that could be obtained; no matter how tightly sealed, if kept at sea for a twelve month, it is scarcely better than so much of the dried debris of any other plant. It is well known that the shorter the voyage from China, other things being equal, the better the quality of tea.

The frauds in tea seem to have kept pace with the extent of its consumption. These chiefly consist in the employment of artificial coloring matter, and in the substitution of foreign leaves.

Green tea is more frequently adulterated than black, and of the latter, *Congou* and *Souchong* are the most pure; while those qualities having the strongest aroma, such as Pekoe, Caper, Chn Lau, and black Gunpowder, are more likely to be adulterated than those apparently weaker. The leaves of the *plum*, *ash*, *elder*, *hawthorn*, *willow*, *poplar*, *horse-chestnut*, *laurel*, *sweet brier*, *elm*, and divers other leaves colored with the *salts of copper* for *green* teas, and with logwood for *black*, have frequently been found by those who have taken the pains to examine the various qualities of tea always in market. Millions of pounds of these and similar leaves are dried annually by the Chinese, by whom they are mixed with, and sold as, tea. These mixtures, and the several varities of tea, constitute many *sub-sorts*, which are colored, dusted, and packed in "original" boxes and papers, to suit the caliber of every purchaser.

Catechu, *kino*, *gum*, *starch*, *sulphate of iron* or *copperas*, *rose-pink*, *logwood*, *black-lead*, *soap-stone*, *indigo*, and *turmeric*, have all been isolated from *black tea* of "exquisite" appearance and "laudable" quality. In addition to these, *green* tea is treated with *Prussian blue*, *mineral green*, *verdigris*, *arsenite of copper*, *Dutch-pink*, *chromate of potash*, *bichromate of potash*, *chrome yellow*, *chalk*, *gypsum*, *carbonate of magnesia*, and many other substances which cannot be separated.

For the detection of these frauds it is absolutely necessary that the person examining be familiar with the appearances and structure of the tea-leaf, and to have the aid of the microscope.

The properties of *pure* tea are known to vary, yet there are certain properties in common with which one may become so familiar as to be able to mark a departure from them. *The infusion* of tea varies in color between light yellow and dark brown. Concentrated and warm, it is limpid, but on cooling, it is found to hold in suspense a fine, grayish powder, which renders the liquid somewhat milky. When this powder is separated by filtration it is found to consist of a combination of tanin and theine, perfectly soluble in hot water, and insoluble in cold; it is insipid, although formed of two very sapid matters—*tanin*, which has a rough, astringent taste; and *theine*, which is intensely bitter.

The infusion, filtered, gives, with a solution of subacetate of lead, an abundant yellowish-brown precipitate, which contains, in combination with the oxid of lead, all of the coloring matter, all the tanin, and a peculiar acid.

The infusion of green tea contains less coloring matter than black, but furnishing a more abundant precipitate, when treated with the subacetate of lead solution, than black tea does. Finally, the principles contained in the infusions of the two sorts are precisely the same, only they differ a little in their proportions, black tea being a little less marked than green.

With a little care most of the matters above named may be removed from tea by simply agitating the samples containing them briskly in a vial of distilled water for a few minutes, and then filtering. Insoluble powders may be thus collected, while the soluble substances may be detected by chemical tests already pointed out in previous papers, to which reference may also be made for the poisonous properties of the substances herein named.

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POWER OF BROKERS TO SELL OR PLEDGE.

United States Circuit Court, Northern District of California. Bragg, Rollinson & Co. *vs.* T. Lemen Meyer.

The action was one of replevin to recover possession of six hundred and fifty bags of coffee, alleged to have been wrongfully withheld from plaintiffs. The facts of the case are as follows:—

About the close of May last plaintiffs entrusted to one Edward Heilbuth the sale of the coffee mentioned, and delivered to him warehouse delivery orders for the said coffee, which was stored at the time in the warehouse of Daniel Gibb & Co., in this city, in the name of plaintiffs. Two orders were given to Heilbuth by Bragg, Rollinson & Co.—one in favor of Edward Heilbuth, or bearer, for 200 sacks; the other in favor of Edward Heilbuth, or order, for 450 sacks. The latter, upon obtaining possession of the orders, went to defendant and inquired if he would loan money on coffee. Meyer replied he would, if it was stored in Strauch's warehouse. The terms of storage with Strauch were arranged by Heilbuth, and the warehouse receipts handed to Strauch. On the 2d of June Heilbuth negotiated a loan from Meyer for $1,200 on the 200 sacks, and on the following day that number of sacks was stored in Strauch's warehouse. On the same day Heilbuth negotiated a further loan of $2,700 from the defendant on the remaining 450 sacks, which were also stored in Strauch's warehouse. The money was advanced to Heilbuth by defendant on the 4th of June, and it is supposed that Heilbuth absconded from the State on the steamer which left this

When this adjustment has been fairly made in a foreign port, according to the usage there, it is held binding, though contrary to the usage at the home port.

If the case, however, is not a proper subject of general average, the foreign adjustment founded in mistake is not binding.

For payment of average, each person may sue for his share when adjusted; but it is usual, where the ship has many consignees, for the master to take a bond from each of the different merchants, to pay his proportion of the average when adjusted.

A *bona fide* owner of the cargo is liable for such proportion, whether he has signed a bond or not; but a consignee is not; and if he do not give a bond, the master would have to resort to the owner, or to coerce payment by retaining the goods.

It is necessary here to add, that, as all sums which are paid on account of general average may be recovered by action from the underwriters, so any person, whose goods have been thrown overboard, or who has expended money for the general preservation of ship and cargo, may obtain repayment by application to a court of equity for a general contribution.

The following example of adjusted averages is here subjoined :—

AVERAGE ACCRUING TO THE SHIP SEA-HORSE, FROM RIGA TO NEW YORK, FOR ASSISTANCE IN GETTING OFF THE STRAND OF ELSINEUR.

To sundry charges paid at the sound for lighters and assistance in getting the ship off		$120 00
Protests and postages		2 00
Total		$122 00
Should the ship arrive at New York, she will make freight		700 00
Wages for all the people, one month and ten days	$139 50	
Victuals " " " "	110 50	
		$250 00
Freight to contribute		$450 00
Ship Sea-horse valued at		4,000 00
Freight valued at		450 00
F. J. for value of hemp, as per invoice		6,000 00
D. N. for value of flax		1,000 00
T. R. for value of iron		350 00
Total		$11,800 00

If $11,800 loss give $122, what will $100 loss give?

Answer—$1 03.39 or nearly .4 per cent.

The ship must bear $4,000 at $1 03.4	$41 36
Freight $450, at $1 03.6 per cent	4 65
F. J. pays the captain for $6,000 at the same rate	62 03
D. N. pays the same for $1,000	10 34
T. R. pays the same for $350	3 62
Total	$122 00

LIQUOR LAW IN MASSACHUSETTS.

The case of James Brown *vs.* Stephen Perkins and wife, was a case growing out of an occurrence in Rockport, on the 8th of July, 1856. Some two hundred women collected together on that day, and proceeded to several places where liquor was sold, and entered the shops by force, and destroyed the liquors there

found. Among other grounds of defence, it was claimed that the defendants, if they performed acts alleged, were justified in so doing, inasmuch as liquors kept for sale, and the shops in which they are kept, are declared common nuisances by the statute of 1855, and, as it was claimed by defendants, could be abated by the destruction of such liquors.

Chief Justice Shaw, of Massachusetts, recently has decided, that liquors kept for unlawful sale may be destroyed by individuals, without legal process, under the *nuisance* act of that State, from which our nuisance act of 1858 was copied. The Court says that "all intoxicating liquors illegally kept for sale, together with the vessels and implements of the trade, and the building in which they are found, are common nuisances, which individuals may abate, when used for illegal purposes, to-wit, gaming, prostitution, and liquor selling.

"All persons have a right to abate a public nuisance. As in cases cited by defendants, individuals may cut down a gate erected in a highway, or destroy a bridge thrown over navigable waters. I am of opinion that liquors kept illegally for sale, with the implements of trade, having been declared by law a public nuisance, every person may destroy them."

Judge Shaw makes a distinction between a house and shop. If kept in a shop, not a dwelling-house, it is justifiable to use so much force as is necessary to come at such liquor and vessels for the purpose of destroying them;—a dwelling-house is surrounded by law with a peculiar sacredness, and in that case the rule would be otherwise. The law abounds in maxims declaring that a man's house is his castle. It is the right of individuals to abate a public nuisance—the right must be cautiously exercised. If no liquor is found in the shop so entered, or if unnecessary violence is used, the justification fails.

CROSSED CHECKS.

An English cotemporary remarks:—One of those astounding decisions by which common sense is overruled by law has just been pronounced in the English courts, in the important matter of crossed checks.

Our readers are aware that an Act of Parliament (19 and 20 Vic., cap 25) was passed to legalize the crossing of checks, by which that was made law which had previously only been custom, viz., that the drawer of a check, or any subsequent holder, might, by crossing the check with the name of a banker, or simply with the words "& Co.," secure its only being paid through a banker, the act declaring that this crossing should operate as a "direction to the banker." Under this protection, the commercial world hitherto rested secure. In the case in question, where the check had been stolen, and the crossing erased, it was held that the loss must fall on the customer, and not on the banker, the judges unanimously laying down the following propositions:—

1st. That as any holder could put a crossing on the check, any other holder, though, as in this instance, a thief! might take it off again.

2d. That the crossing formed no part of the check; and the erasure of it, consequently, by the thief was not a forgery, so that the banker was discharged from all liability.

Any comment on this complete abrogation of an Act of Parliament would be as absurd as the decision itself. The only thing that can be done is to put the crossing on in such a manner as to make erasure impossible, either by a caustic ink, or by a printed crossing from end to end. The better plan, no doubt, would be a short declaratory act, that the crossing shall be held to be, and form part of, the check.

Another case relative to checks was decided at the same time, and may be information to our readers. The defence was, that the check had not been presented in due time, having been issued in 1856, but not presented till 30th of March, 1857. The Court held that no time would be unreasonable within six years, unless loss was caused by the delay.

COMMERCIAL CHRONICLE AND REVIEW.

STATE OF BUSINESS—BANK BALANCES—INCREASE OF MEANS IN NEW YORK—NO SPECULATIVE BANK LOANS—CLEARING-HOUSE—NEW YORK AND PHILADELPHIA—COMPARATIVE LOANS—CLEARINGS—STOCKS AND RENTS—SPECIE—ABUNDANCE OF MONEY—BANK OF FRANCE—RATE OF INTEREST—BANK OF GREAT BRITAIN—MOVEMENT OF CROPS AND SPECIE—LARGE ACCUMULATION—DIMINUTION OF CURRENCY—DISPOSITION OF SPECIE—MEANS FOR THE FUTURE—EXCHANGES—EXPORT OF SPECIE—ASSAY-OFFICE—TABLE OF EXPORTS—NATURE OF SPECIE EXPORTED—FEDERAL TREASURY—PROSPECTS OF NEW LOAN—STAGNATION OF BUSINESS—CURRENCY—SUFFOLK BANK—COURSE OF IMPORTS.

THERE has been a gradual recovery of business confidence in most departments, with a moderate increase in activity. If the sum of business falls below that of late years for the autumn seasons, it has probably been more safe and lucrative in its net results, and has not been marked by that money pressure which has in the last six or seven years almost invariably set in when the fall paper matures. The bank balances have usually accumulated in New York in the summer months from all quarters, and have been employed on stock loans and other temporary objects, until the usual crop movement required their presence once more out of New York. They have, consequently, to a greater or less extent, promoted speculations, and, when the balances are withdrawn, a number of borrowers compete in the market with those who require extra means to complete the fall payments for goods. The course pursued by the New York banks in allowing interest on deposits, attracted hither from country banks considerable balances, which uniformly run highest towards the end of the crop year in August. When the crops begin to move these balances are drawn down, and a pinch in the market always results. In order to illustrate the financial progress at New York, the following table of the New York banks in June of each year will be useful:—

	Capital.	Loans.	Specie.	Balances due banks.
June, 1848.....	$24,149,910	$41,568,078	$4,740,847	$4,387,134
" 1849.....	24,920,000	50,260,487	9,586,308	9,804,273
" 1850.....	27,300,330	60,028,155	10,739,957	11,231,160
" 1851.....	33,033,093	71,933,514	7,985,954	17,316,289
" 1852.....	35,528,250	81,821,460	12,152,048	18,150,081
" 1853.....	42,696,793	95,520,656	12,021,851	17,753,574
" 1854.....	45,515,288	91,916,710	10,280,969	20,108,000
" 1855.....	48,688,730	91,197,653	15,397,674	18,525,760
" 1856.....	53,985,000	108,474,921	16,166,180	20,208,100
" 1857.....	62,859,135	115,338,592	13,134,715	20,772,780
" 1858.....	67,819,100	118,299,388	31,704,814	28,275,873

The table shows how rapidly bank capital has increased here, and how constantly the quantity of money sent here from the interior for employment has swollen in amount. The great agricultural prosperity of the years 1847–48 placed large surplus funds at the disposition of the banks of the interior, and these funds have annually increased, always stimulating an inflation, which has as uniformly been followed by a pressure in the fall months.

This year there has been no speculation. The tendency has been to settlement and payment without putting money into new enterprises of any kind. The fall payments have passed amid a great abundance of money and little demand for it.

The bank loans, as will be seen in the usual weekly tables annexed, have gradually shrunk under the process of payment. They stood in New York, in the first week of October, $3,000,000 lower than at the close of August. The returns of the banks, however, show considerable credits, notwithstanding the general dullness of business.

Mr. Lyman, of the Clearing-house, has furnished for publication the following summary of the circulation and net deposits, specie, and loans and discounts of the banks of this city, from the 1st of January, 1855, to the 1st of October, 1858. By this it appears that the weekly average was as follows :—

	Deposits & circulation.	Specie.	Loans & discounts.
1855	$66,509,433	$14,162,414	$93,909,212
1856	73,557,625	13,325,280	105,382,060
1857	71,623,051	13,560,505	109,927,774
1858, nine months	87,285,274	31,943,635	113,301,703

The circulation and deposits due by the banks are very large, and the loans, due to the banks by the public, exceed the average of the last year, notwithstanding the extreme dullness of business. The large amount of deposits represents unemployed funds, and the loans are on government stocks, representing less commercial paper than usual.

The comparative clearings of the banks in Philadelphia and New York have been as follows, since the commencement of the former :—

	Philadelphia.		New York.	
	Clearings.	Balance.	Clearings.	Balance.
March 22 to 31	$28,466,482	$1,554,155	$98,574,336	$5,915,489
April	70,250,273	4,632,115	514,111,772	32,992,935
May	71,094,720	4,330,135	429,259,921	26,587,588
June	64,605,439	4,105,612	489,426,048	33,711,360
July	64,357,890	4,758,624	395,346,430	26,157,811
August	60,605,555	4,024,529	383,887,865	19,802,440
Total	$359,380,309	$23,405,170	$2,310,606,372	$145,167,623

The clearings in Philadelphia have been one-seventh the amount of the clearings in New York, and the cash balances paid have been in a larger proportion. The amount of clearings in New York bears a much larger proportion to the amount of bank loans than in Philadelphia. Thus, in the latter city, the loans are averaged at $24,000,000, under the supposition that they average fifty days maturity; the amount paid in the time embraced in the table is $72,000,000, while the clearings have been five times that amount. In New York the sum of notes matured would be $172,000,000, while the clearings have been thirteen times that amount. The result shows the vast amount of business transactions done at the banks, besides the payment of loans. The immense number of checks drawn against deposits, and paid out for rents, bills, etc., joined to those originating in stock transactions, swell these amounts in New York to twelve times the note payments, and in Philadelphia to five times the note payments. The stock operations in New York swell the sum of the clearings to a great extent. These are one to ten millions per day, and perhaps the transfer and retransfer of $1,000,000 stocks may sometimes carry with it three to ten millions of checks, all drawn upon banks, to be made good before three o'clock, and all coming into the Clearing-house next morning, without any legitimate business resulting from it. The amount of these transactions is now comparatively very small, and the clearings are proportionately limited.

The New York stock market is without any signs of speculation. The great distress which was engendered by the occurrences of the last year weigh heavily upon the markets, and Western railroads particularly are avoided. It is also the case that the classes who usually deal in stocks are less in funds than usual. The same is true of general business, which, in a dull season, does not create those numberless checks in payment of small bills and accounts that so swell the sum of the clearings. If we take a list of clearings in New York, we find that the weeks which embrace quarter-days—November 1st, February 1st, May 1st, and August 1st—uniformly show $10,000,000 more clearings than those which precede or come after them. Thus, for April 5th to July 7th, there was no week when the clearings were over $107,000,000, except the first week in May, when they were $117,000,000. In the first week in August they were $102,700,000, while the average for six weeks was only $92,000,000. The fact indicates the importance of rent payments in the clearing accounts. The value of money is rather less than more on "call" stocks collateral. Brokers have obtained money at 3 and even 2 per cent, but 4 is the current quotation; good paper is done 4 a 6. The inside figure for good names, and the banks do not get a sufficiency. The accumulations of specie, both here and in Europe, continue very large.

The returns of the Bank of France by the last arrival show a continued immense increase in the accumulation of specie. That institution has reduced its rate of interest to 3 per cent. The returns of the banks in the leading cities are as follows :—

SPECIE IN BANKS.

	October.	March 11.	June 13.	July 12.	August 14.	September 9.
London.	$35,850,110	$88,582,091	$86,530,188	$84,217,895	$83,937,637	$87,311,010
Paris...	85,585,618	63,323,865	85,716,528	98,991,184	105,288,051	111,328,872
N. York	7,843,230	32,961,076	33,367,253	35,328,184	44,037,300	40,686,300
N. Orl'ns	3,230,370	10,978,759	10,312,287	10,877,768	10,912,871	11,285,308
Boston.	2 563,112	7,589,968	9,410,569	9,000,663	8,795 945	8,701,679
Philad..	2,071,434	5,448,514	7,055,188	6,399,754	6,875,520	6,635,856
Total	86,743,890	208,884,273	232,391,913	244,855,448	259,842,424	265,969,025

The aggregate accumulations is now more than three times as much as for the same time last year. The amount is equal to five years of California production. That in the Bank of France is larger than ever any bank held before, and, as the discounts continue to decline, following the inactivity of general business, the prospect is of a still greater increase in bullion; and the increase in the English bank is causing expectations of a further reduction in the rate of interest. The fine crops favor the accumulation of specie, as well as the demand for goods. The National Bank of Austria, which held 108,000,000 florins, or $54,000,000, has, by decree, been required to redeem its notes in specie after November 1st, 1858. The notes then to be issued are of 1,000 florins, 100 florins, and 10 florins, and one-third must be represented by gold and silver, and the other two-thirds by legal discounted bills, or by stock. This regulation will go far to give confidence, and promote the circulation of coin in Europe. In the United States the accumulation of coin continues in the banks, and for the coming year is likely to continue to do so, since the imports of goods are small, general industry still depressed, and the exports of the leading staple, cotton, tobacco, etc., large.

The immense sums in coins and notes that have been withdrawn by the banks from circulation in the last ten months, show the great stagnation of business,

which before actively employed all that money; but as soon as the paralysis came upon the market, and payments began to be made in excess of the sums demanded for enterprises, the great reservoirs of money capital began to fill, and they have gone on doing so until the sums of specie amassed excite surprise. The banks of five cities hold now, in round numbers, two hundred millions, that have been collected from circulation during the year. That sum represents one-fourth the gold production of the past six years; another fourth has, in silver, been sent to Asia, and there remains but one-half of the whole production to supply the enlarged channels of circulation, the bills of all other banks and bankers in Europe, and the amounts hoarded, when business shall have revived. The large reserve of bullion will flow into its channels in connection with the new large supplies from the mines. From these sources there will in two years be four hundred millions of gold to spare to business, and this will be aided by about one hundred millions of paper issues, which have the same effect upon enterprise. This volume of currency, impending upon the six commercial centers enumerated, will be aided by very large yields of natural products in Europe and America with the newly opened Chinese Empire to operate upon. The Bank of France has reduced its rate of interest, we think for the first time in its history, to three per cent, and the rate is now the same as in London.

The movement of commerce has not been such in New York as to promote any very active demand for exchange, of which the quotations are as follows:—

	October 1.	October 15.
London	9¼ a 10⅛	9¼ a 10⅛
Paris	5.11½ a 5.13¾	5.11½ a 5.13¾
Amsterdam	41⅜ a 41⅝	41⅜ a 41⅝
Frankfort	41⅝ a 41¾	41¼ a 41⅝
Bremen	79 a 79½	79⅛ a 79⅜
Hamburg	36¼ a 36⅝	36⅛ a 36¼
Antwerp	5.11½ a 5.12½	5.11½ a 5.12½
Berlin, Liepzig, Cologne	73⅝ a 73⅞	73¼ a 73½

The export of specie has continued considerable as compared with same time last year, when the extreme panic upon the market caused all the gold which arrived to be coined for circulation, instead of being cast in bars for export. If we take the movement of the New York Assay-office for three months—August, September, and October—for three years, we have results as follows:—

	1856.		1857.		1858.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
August	$1,158,000	$16,100	$885,000	$235,000	$1,725,000	$311,000
September	1,575,000	26,500	1,300,000	275,000	1,520,000	550,000
October	2,300,000	39,500	2,733,000	650,000		
Total	$5,033,000	$82,100	$4,918,000	$1,170,000		

The deposits of silver increased largely during the panic last year, over those of the same time in the previous year, and the payments ordered were as follows:—

	1856.		1857.		1858.	
	Bars.	Coin.	Bars.	Coin.	Bars.	Coin.
August	$1,154,600	$10,000	$890,000	$240,000	$1,610,000	$426,000
September	1,585,600	16,000	250,000	1,325,000	1,512,000	558,000
October	2,309,500	30,000	24,000	3,359,000		
Total	$5,049,700	$56,000	$1,364,000	$4,920,000		

In 1856 nearly all the gold was ordered into bars for export. In 1857, the panic being on the market, the reverse was the case, and all the metal was ordered into coin for use. This year the proportion of coin continues large, and a considerable portion is of foreign silver arrived here, and which has become very abundant, so much so that banks refuse it, since it is not a legal tender over $5. The quantity of coined money has been added to the circulation in the past year.

The supply of bars for export has been good, and the receipts and exports, with the amount remaining in the city, have been as follows:—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,266
23.....	.....	781,295	.....	1,244,368	3,073,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,480	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,184	225,274	2,964,000	35,925,076
20.....	1,004,000	306,851	11,000	116,114	6,853,852	37,681,656
27.....	....	38,734	1,403,949	83,120	6,141,594	37,071,066
April 3.....	1,487,128	742,233	.....	115,790	5,548,069	37,078,069
10.....	875,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	203,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,890	1,550,000	136,873	3,145,400	38,209,613
8.....	.....	671,101	.....	106,110	2,874,200	38,327,346
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,394,892	1,446,175	16,616	4,803,609	38,170,900
17.....	208,000	2,045,389	.....	68,318	7,773,108	38,011,251
26.....	.....	2,019,406	1,799,502	276,487	7,461,600	39,410,688
July 3.....	1,892,000	58,228	.....	317,110	5,820,000	39,650,000
10.....	.....	1,184,115	1,500,000	564,030	5,842,200	40,047,800
17.....	1,591,107	523,368	.....	637,240	5,157,600	40,485,000
24.....	200,000	1,893,893	.....	1,028,270	5,336,000	40,851,090
31.....	1,488,040	896,407	1,163,818	303,318	5,144,700	40,856,800
Aug. 7.....	.....	1,615,932	.. ....	786,841	5,553,400	40,699,200
14.....	1,245,905	930,430	1,531,514	440,729	12,836,800	44,037,300
22.....	.....	2,180,008	.....	844,781	17,739,600	46,089,100
29.....	.....	149,399	1,434,674	187,941	13,418,000	41,235,000
Sept. 4.....	1,706,000	287,500	.....	562,087	13,077,000	41,125,600
11.....	100,000	187,187	1,796,139	227,980	12,626,900	40,686,300
18.....	lost, C. A.	102,968	.....	1,361,110	12,612,200	41,420,200
25.....	260,000	10,687	1,570,924	474,945	11,838,000	40,463,000
Oct. 2.....	.....	412,600	.....	1,126,404	11,100,600	39,633,700
9.....	1,268,735	69,000	1,322,005	675,817	10,476,649	39,646,853
Total.....	27,509,952	32,832,953	27,275,869	21,751,053	.....	.....

From Boston the exports have been small; for September $126,750. The description and destination of the specie exports from the port of New York have been as follows:—

SHIPMENTS OF SPECIE FROM PORT OF NEW YORK.

	American coin.	Bars.	Silver.	Sov'reigns.	D'bloons.	French gold.	Spanish silver.	Total.
Liverpool ...	100,600	2,215,904	1,115	25,177	.....	....	76,280	2,419,076
Havre.....	50,000	1,032,636	....	.....	.....	....	....	1,082,636
Havana.....	.....	.....	....	.....	5,100	....	....	5,100
Hamburg ...	1,400	... ..	....	.....	.....	....	....	1,400
Bremen	2,250	.....	5,055	.....	.....	2,400	....	9,705
Balize.....	1,120	.....	....	.....	.....	....	....	1,120
Buenos Ayres	.....	.....	....	.....	16,550	....	....	16,550
Neuvitas....	.....	.....	....	.....	1,560	....	....	1,560
St. Thomas..	5,000	.....	..	. ...	17,000	....	....	22,000
Ponce.....	.....	.....	2,000	.....	31,129	....	....	33,129
Bolivar.....	25,000	.....	....	.....	.....	....	....	25,000
Jacmel	500	.....	....	.....	. ...	....	....	500
Para	20,000	.....	....	.....	.....	....	....	20,000
Aux Cays...	500	.....	....	.....	.....	....	....	500
Total.....	206,370	3,248,540	8,170	25,177	71,339	2,400	76,280	3,638,276
May 6, Oct. 10	2,117,610	8,544,748	49,666	807,488	284,287	88,575	89,698	11,400,076

Although, as will be seen by the annual monthly tables of the trade at this port, the revenues of the federal government have been somewhat larger for September, yet its expenditures have been greater, and the whole amount of funds in the federal treasury has been reduced from $12,895,424, at the close of August, to $10,868,934, at the close of September; that is, by $2.026,490, and an issue of the remaining half of the authorized loan of $20,000,000 is looked for, and the new fives have been dull at 3¼ premium. State stocks generally are heavy.

The general stagnation of business causes far less currency than usual to be needed, and the circulation outstanding of the banks is not large. In New England the operation of the Bank of Mutual Redemption, the advent of which we alluded to in our last, has been accompanied by an active war with the Suffolk Bank, which has resulted in the renouncement by the latter of future responsibility for the currency.

The amount of imports at the port of New York for the month of September has been less than for the last year, but the quantities of goods put on the market show an excess over those sold for the same month last year. The money pressure last year caused a considerable amount of goods to be warehoused, and the operation this year is the reverse. The imports for the month are as follows :—

FOREIGN IMPORTS AT NEW YORK IN SEPTEMBER.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$11,859,017	$10,934,435	$8,841,367	$11,180,523
Entered for warehousing.....	1,566,377	3,264,622	5,428,203	2,900,710
Free goods.....	489,126	1,026,208	1,772,505	1,253,829
Specie and bullion.....	107,205	84,097	805,285	138,233
Total entered at the port.....	$14,021,725	$15,309,362	$16,847,360	$15,473,295
Withdrawn from warehouse.....	2,311,841	3,457,622	2,882,046	2,905,062

Last year the stock of goods in bond was large, and very large additions were made during the month. This year the quantities in bond have supplied the market, when imports were small.

The total imports at New York since January 1st are about the same as in 1855. The total is over one hundred and fifteen millions, being $78,175,639 less than for the first nine months of 1857 :—

FOREIGN IMPORTS AT NEW YORK FOR NINE MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$84,665,055	128,900,191	114,522,999	$76,582,434
Entered for warehousing	19,187,452	28,494,662	56,855,873	20,232,150
Free goods.....	10,252,994	14,701,645	15,504,705	16,552,095
Specie and bullion.....	678,999	1,150,770	6,679,914	2,021,173
Total entered at the port.....	114,784,500	173,247,268	193,563,491	115,387,852
Withdrawn from warehouse.....	19,471,459	19,094,642	32,122,274	31,097,577

In face of this large increase. it will be seen that over thirty-one millions have been withdrawn from warehouse, reducing the stock $11,000,000, where last year it was increased $24,000,000 :—

QUARTERLY STATEMENT OF FOREIGN IMPORTS AT NEW YORK FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
First quarter	$35,200,366	$51,871,305	$65,666,728	$29,044,464
Second quarter.....	32,747,068	56,430,604	55,262,699	32,740,170
Third quarter.....	46,837,071	64,945,359	72,634,064	53,603,218
Total, nine months	114,784,500	173,247,268	193,563,491	115,387,852

The imports of dry goods for consumption in September of the present year are somewhat larger than for the same month last year, when the panic began to weigh upon the market. The increase is $1,341,223, mostly silks and woolens. Last year large quantities were warehoused in consequence of the money stringency, hence the total imports is now less by $640,267 than for September, 1857, but the amount thrown upon the market is $572,567 larger than the imports, showing a reduction in stocks :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF SEPTEMBER.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$2,607,170	$2,154,266	$1,362,495	$1,910,282
Manufactures of cotton.....	1,042,843	1,050,922	820,449	881,692
Manufactures of silk.....	2,380,508	1,880,926	1,348,572	2,077,708
Manufactures of flax.....	753,019	315,542	375,293	404,768
Miscellaneous dry goods.....	648,472	600,514	328,275	301,912
Total.....	$7,432,012	$6,502,170	$4,235,084	$5,576,307

WITHDRAWN FROM WAREHOUSE.

Manufactures of wool.....	$267,575	$524,532	$330,389	$484,900
Manufactures of cotton.....	82,928	166,728	87,362	128,765
Manufactures of silk.....	190,682	163,573	107,333	178,456
Manufactures of flax.....	91,782	80,139	73,091	121,410
Miscellaneous dry goods.....	96,438	21,175	70,240	107,745
Total.....	$729,405	$956,147	$668,415	$1,021,276
Add entered for consumption....	7,432,012	6,502,170	4,235,084	5,576,307
Total thrown on market....	$8,161,417	$7,458,317	$4,903,499	$6,597,583

ENTERED FOR WAREHOUSING.

Manufactures of wool.....	$91,479	$332,632	$920,825	$178,150
Manufactures of cotton.....	109,258	154,866	455,549	100,492
Manufactures of silk.....	76,010	181,766	440,269	44,416
Manufactures of flax.....	46,671	143,687	420,909	79,043
Miscellaneous dry goods.....	37,884	53,859	193,146	46,607
Total.....	$361,302	$866,810	$2,430,198	$448,708
Add entered for consumption....	7,432,012	6,502,170	4,235,084	5,576,307
Total entered at port.....	$7,793,314	$7,368,980	$6,665,282	$6,025,015

This leaves the total imports of foreign dry goods at this port, since January 1st, $640,267 less than for the corresponding date of last year, while the amount put on the market is $1,694,084 more than for September, 1857 :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR NINE MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$13,024,243	$21,315,298	$19,010,964	$13,890,886
Manufactures of cotton	6,514,180	12,763,076	13,748,031	7,557,996
Manufactures of silk	17,212,822	25,254,582	21,911,711	14,459,562
Manufactures of flax	4,175,570	6,649,359	5,044,318	3,359,963
Miscellaneous dry goods	4,077,029	5,873,957	5,380,366	2,698,170
Total	$45,003,344	$71,856,272	$65,095,390	$41,966,527

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$2,212,832	$2,317,929	$4,815,683	$4,003,246
Manufactures of cotton	1,984,560	1,819,911	2,718,415	3,280,663
Manufactures of silk	2,348,560	1,764,310	3,862,866	3,065,465
Manufactures of flax	1,063,168	864,858	1,389,126	1,868,026
Miscellaneous dry goods	708,199	335,975	707,877	1,136,379
Total withdrawn	$8,317,819	$7,102,983	$13,493,967	$13,353,779
Add entered for consumption	45,003,344	71,856,272	65,095,390	41,966,527
Total thrown upon market	$53,320,663	$78,959,255	$78,589,357	$55,320,306

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$1,449,109	$2,771,289	$6,650,196	$1,909,642
Manufactures of cotton	1,251,810	1,588,051	3,078,640	1,648,080
Manufactures of silk	1,746,238	1,870,394	4,647,896	1,032,557
Manufactures of flax	771,897	780,466	1,957,634	728,273
Miscellaneous dry goods	597,557	492,547	1,417,544	483,884
Total	$5,816,611	$7,502,747	$17,751,910	$5,802,386
Add entered for consumption	45,003,344	71,856,272	65,095,390	41,966,527
Total entered at the port	$50,819,955	$79,359,019	$82,847,300	$47,768,913

The total exports, exclusive of specie, shipped from New York to foreign ports in the month of September, errors excepted, is $1,306,385 less than for the same period of last year, and about half those for September, 1856. We annex a comparison for four years :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF SEPTEMBER.

	1855.	1856.	1857.	1858.
Domestic produce	$5,228,637	$7,045,202	$4,218,954	$3,521,992
Foreign merchandise (free)	17,369	67,325	417,570	169,863
Foreign merchandise (dutiable)	358,896	509,752	566,106	204,890
Specie and bullion	1,831,684	3,738,547	990,476	3,239,591
Total exports	$7,436,586	$11,360,826	$6,193,106	$7,135,836
Total, exclusive of specie	5,604,902	7,622,279	5,202,630	3,896,245

The shipments of specie for September last year were very small, for reasons sufficiently obvious. The exports, exclusive of specie, from New York to foreign ports this year are nearly as large as for the same time in 1856. The exports of specie show a large decrease, notwithstanding the increase in September :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR NINE MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce	$29,808,299	$57,336,195	$47,283,769	$41,534,618
Foreign merchandise (free)	3,457,965	748,075	3,127,326	1,125,561
Foreign merchandise (dutiable)	3,781,244	2,554,353	4,104,150	2,986,672
Specie and bullion	24,439,196	27,487,086	33,288,632	20,602,848
Total exports	$71,486,704	$88,125,709	$87,753,877	$66,249,699
Total, exclusive of specie	47,047,508	60,638,623	54,465,245	45,646,851

We have prepared a quarterly statement of the shipments of domestic produce from New York, which will indicate the course of these exports during the last nine months, as compared with former years :—

QUARTERLY STATEMENT OF EXPORTS OF DOMESTIC PRODUCE.

	1855.	1856.	1857.	1858.
First quarter	$12,958,884	$18,710,798	$17,847,525	$12,421,547
Second quarter	13,378,540	19,066,095	16,604,115	16,158,845
Third quarter	13,470,875	19,559,302	12,782,129	12,954,226
Total, nine months	$39,808,299	$57,336,195	$47,283,769	$41,534,618

The cash duties received at New York show a falling off as compared with last year, owing obviously to the small importation, notwithstanding the quantities taken out of bond, being the reverse of last year, when duties for the month were lessened by putting goods in bond :—

CASH DUTIES RECEIVED AT NEW YORK.

	1856.	1857.	1858.
In September	$3,702,134 70	$2,249,982 89	$2,672,935 63
Previous eight months	33,269,089 13	30,227,371 32	18,021,536 91
Total since January 1st	$36,971,223 83	$32,477,354 21	$20,694,472 54

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

SPECIE IN THE UNITED STATES.

Various estimates are made from time to time of the quantity of specie in the country, and the mode of its distribution. Some are very wild in their results. The best means of approximation is to adhere to the official figures in relation to the precious metals. For this purpose, we go back to the first records of their movement, which were commenced in 1821. It is to be borne in mind that this country—which up to 1824 produced none of the precious metals, and from that time only in small quantities up to 1849—was obliged to depend entirely upon the sale of its produce to other countries for a supply of those metals for ornament and use. To procure that supply, it was necessary that, whatever might be the apparent fluctuations of commerce, it should in the long run be what is called "favorable." Up to 1821, there had been about $16,000,000 coined, but foreign coins were continued a legal tender up to within a few years. In 1821, the banks held about $19,000,000, and Crawford, Gallatin, and others estimated that at that time there was about $37,000,000 in the country. From that time up to 1849, when California was discovered, the movement was as follows :—

Specie in the country, 1821		$37,000,000
Production of United States mines		13,811,206
Import	$242,239,061	
Export	180,596,664	
		60,642,397
In the country, 1849		$111,453,603
In the Federal Treasury	$5,700,915	
In banks	43,619,000	
In plate, ornaments, &c., estimated	30,000,000	
In money circulation	32,133,688	
		111,453,603

In 1849, we began to receive California gold, most of which has passed through the Mint, as well as imported metals, particularly silver. The following table shows the amount of both metals coined in each year; the amount of both metals bearing the United States stamp exported in each year; also the quantity of metals imported and re-exported in the same shape. The returns of the Mint were formerly made up to December of each year, but by the law of February 21, 1857, they were ordered to be closed June 30, the regular fiscal year; hence, the amount of coinage for 1857 is for six months only—January 1 to July 1:—

COINAGE OF UNITED STATES, EXPORTS OF UNITED STATES COIN, AND IMPORT AND EXPORT OF FOREIGN COINS.

Years.	Coinage.	Export U. S. Coin.	Import coin.	Export foreign coin.
1849	$11,122,712	$956,874	$6,651,240	$4,548,774
1850	33,847,838	2,045,679	4,628,792	5,477,315
1851	63,388,889	18,069,580	5,453,592	11,403,172
1852	57,845,598	37,437,837	5,505,044	5,236,308
1853	64,291,478	23,548,535	4,201,382	3,938,340
1854	60,713,865	38,234,566	6,758,587	3,962,784
1855	44,060,304	53,957,418	3,659,812	2,289,925
1856	64,283,963	44,148,279	4,207,632	1,597,206
1857	26,794,782	60,078,352	12,981,101	9,840,781
Total	$426,349,428	$278,477,120	$53,527,880	$46,411,334
Excess import				7,116,546

We have thus the fact that the import of foreign coins has exceeded the export by $7,116,546, and this has taken place since the passage of the silver coinage bill in 1852, since when the government has been a buyer of silver for coinage into the new coins of appreciated value. The silver has come mostly from Mexico to New Orleans and to New York, and, added to the California gold, has swelled the amount of coinage, of which the excess over the export of United States coin is the large sum of $147,872,308. In the year 1857, the importation of gold was large in the shape of doubloons from France, through New York to Cuba, on account of the high price of sugar. The general fact drawn from these figures is that the amount of coins in the country has increased $147,872,308 since 1848, when the amount was $111.453,603. The amount of hard currency has considerably more than doubled, and is now—

On hand, 1848		$111,453,603
Increase to 1857		147,872,308
In the country, 1857		$259,325,911
In Treasury	$22,101,202	
In banks	58,955,859	
In plate, &c	40,000,000	
In circulation	138,268,850	
		259,325,911

The amount in plate and ornaments is an estimate, and is probably much under the mark, as it gives but $8 for the plate and ornaments of each white family in the Union. The import of watches and jewelry in 1857 was about $4,000,000. This, of course, is not included in the specie, but indicates the amount of ornaments used.

Again, the Commissioners at Castle Garden, where three-fourths of the immigrants into the Union arrive, ascertain that the money (coin) brought by them averages $100 per head that they admit to have in their possession. The number of immigrants that have arrived in the Union since 1843 is 3,635,460, which, at $100 each, would give the enormous sum of $363,546,000, or a sum equal to the product of California. Be the sum, however, more or less, we have not taken it into account; but it indicates that it is enough to cover all unreported out-goes from the country. We can now estimate the actual circulation of the country:—

	1848.	1857.
Bank loans	$344,476,000	$728,029,914
Bank circulation	128,506,000	155,208,344
Less notes on hand	16,427,000	22,447,436
Net circulation	$112,079,000	$132,760,908
Specie in circulation	32,133,688	138,268,850
Mixed circulation	$144,212,688	$271,029,750

We observe that the circulation has nearly doubled, but that it is mostly in specie. The paper has increased $20,000,000, but the specie has risen $106,000,000. It is not, therefore, a matter of surprise or regret that the continued product of $50,000,000 per annum in California should find a market abroad, without still further adding to this large volume of currency.

The above figures come down only to the close of the fiscal year 1857. Since then the activity of the Mint was greatly increased by the panic. The coinage of the Pennsylvania Mint was but $525,833 in August, 1857, which rose to $3,367,490 in October. At New Orleans the coinage has also been active—mostly of silver. The official figures of the whole specie movement for 1858 are, however, not yet at hand. As far as received they indicate that about $20,000,000 has been added to the currency last year.

CONDITION OF THE BANKS OF MASSACHUSETTS FROM 1854 TO 1858.

LIABILITIES.

Years.	Number of banks.	Capital.	Circulation.	Deposits.	Profits on hand.	Total.
1854 ..	151	$53,572,652	$18,641,402	$18,651,929	$5,110,371	$95,476,354
1855 ..	168	57,314,603	16,319,568	18,608,631	5,367,991	95,603,793
1856 ..	169	58,187,000	18,057,762	20,780,217	5,995,970	102,970,949
1857 ..	173	58,571,930	17,404,282	23,613,096	6,267,601	105,856,259
1858 ..	173	60,386,960	9,795,630	22,725,660	7,153,680	100,061,930

RESOURCES.

Year.	Number of banks.	Notes, bills of exchange, &c.	Specie.	Real estate.	Total.	Ratio of circulation to specie.
1854.....	151	$90,833,439	$3,456,406	$1,186,509	$95,476,354	$5.40
1855.....	168	90,689,771	3,727,512	1,186,610	95,603,793	4.37
1856.....	169	97,222,876	4,497,731	1,250,342	102,970,949	4.01
1857.....	173	99,725,161	4,880,756	1,250,342	105,856,259	3.57
1858.....	173	92,130,832	6,322,485	1,608,613	100,061,930	1.54

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,983	$28,561,946	$6,490,403	$78,635,225	$13,601,357	$65,033,867
9	98,792,757	29,176,838	6,625,464	79,841,362	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,598,848	13,074,762	69,523,836
30	102,180,089	31,273,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,373,931	86,000,468	15,439,083	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,583	70,425,909
20	103,706,734	31,416,076	6,542,618	86,773,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 5	105,021,863	32,739,731	6,354,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,432	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,231	90,644,098	16,429,056	74,201,709
April 3	110,588,354	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,436	7,245,809	93,566,100	16,775,237	76,790,863
17	111,341,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111,868,456	35,064,213	7,431,814	98,438,506	17,875,203	80,563,303
8	112,741,955	35,453,146	7,735,056	101,165,806	19,438,661	81,727,146
16	114,199,288	34,730,728	7,502,975	101,884,163	18,284,868	83,599,295
22	115,658,082	34,047,446	7,307,445	101,917,869	17,620,131	84,297,738
29	116,650,943	31,496,144	7,252,616	99,351,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,830	101,489,535	17,982,648	83,506,887
12	116,022,152	33,367,253	7,367,725	100,787,073	16,503,899	84,283,194
19	117,797,547	32,396,456	7,297,631	102,149,470	16,818,521	85,280,987
26	118,823,401	31,948,089	7,215,689	101,961,682	15,825,983	86,135,699
July 3	119,812,407	33,830,282	7,458,190	106,803,210	17,267,927	89,535,283
10	118,363,937	34,705,593	7,571,373	106,420,723	18,168,757	88,260,956
17	119,164,222	35,328,184	7,346,946	107,101,061	17,046,961	90,054,100
24	118,946,482	35,315,243	7,351,065	105,490,896	15,365,206	90,105,690
31	119,850,456	35,712,107	7,408,365	106,456,030	15,310,157	91,145,873
Aug. 7	120,892,857	35,154,844	7,784,415	107,454,715	17,115,237	90,339,678
14	123,374,459	31,150,472	7,388,739	105,084,769	15,208,690	89,826,082
21	126,868,231	28,349,507	7,480,684	104,609,658	15,449,895	89,159,763
28	126,004,424	27,817,006	7,466,846	103,928,178	16,208,039	87,720,139
Sept. 4	125,885,840	28,048,661	7,748,249	103,347,811	15,414,213	87,933,594
11	125,013,211	28,059,495	7,830,669	102,899,554	15,989,375	86,908,179
18	124,649,018	28,808,068	7,813,695	104,733,688	17,603,982	87,129,706
25	124,118,904	28,625,331	7,864,378	102,429,844	16,347,447	86,081,897
Oct. 3	123,659,697	28,533,785	7,875,750	104,901,563	19,015,193	85,886,370
9	123,599,250	29,170,204	7,980,519	105,565,930	19,175,717	86,390,203

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 5....	$50,726,800	$5,028,000	$5,416,000	$17,073,800	$3,911,000	$5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,368,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25....	51,772,412	6,073,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,395,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,187,972	7,079,606	5,898,660	18,429,945	5,568,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,329,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,187,000
15....	52,068,743	7,559,698	5,291,549	18,909,682	5,837,534	6,011,377
22....	51,999,451	7,285,581	5,163,492	19,029,251	5,934,007	6,057,699
29....	51,632,451	7,905,491	5,159,569	18,895,249	5,804,569	5,925,462
April 5....	51,918,000	8,259,500	5,477,500	20,136,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	5,987,725	6,590,350
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,533	7,363,702

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
May 4....	51,499,700	9,243,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,903,020	20,846,860	6,530,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,037	7,265,607	6,399,061
14....	53,951,032	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268
21....	54,162,119	9,457,831	5,703,699	20,764,739	7,804,896	5,809,542
28....	54,780,644	9,119,604	5,633,176	20,833,942	7,827,075	5,674,795
July 5....	55,808,453	9,104,461	6,313,049	21,570,803	8,089,162	6,357,413
12....	56,200,929	9,000,663	6,538,325	21,075,247	8,526,510	6,299,019
19....	56,626,264	8,930,757	6,286,698	21,462,437	8,565,647	6,023,415
26....	56,602,469	8,943,004	6,268,745	21,456,471	8,658,185	6,268,745
Aug. 2....	56,250,500	8,883,400	5,869,800	21,161,000	8,467,000	5,757,000
9....	56,096,805	8,985,526	6,238,221	21,051,519	8,445,734	6,112,023
16....	55,971,072	8,795,945	6,026,818	20,804,875	8,132,356	5,675,867
23....	55,845,271	8,958,280	5,988,995	20,698,794	7,693,989	5,599,457
30....	55,650,350	8,724,186	5,889,477	20,698,228	7,537,728	5,952,844
Sept. 6	55,926,042	8,701,679	6,137,981	20,971,138	7,632,562	6,287,397
13....	56,238,615	8,589,825	6,265,577	20,634,771	7,837,548	6,267,769
20....	56,414,497	8,432,250	6,265,314	20,799,474	7,932,082	6,493,886
27....	56,410,258	8,378,564	6,155,136	21,003,583	7,728,766	6,565,208
Oct. 4....	56,226,344	8,593,378	6,415,799	21,561,424	7,572,434	7,064,285

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,302,374	$3,770,701	$1,011,033	$11,465,263	4,453,304
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512,765	4,349,676
Jan. 25....	20,780,958	4,243,966	1,062,192	11,547,697	4,414,160
Feb. 1....	20,423,704	4,465,693	1,096,462	12,195 126	4,173,710
Feb. 8....	20,359,226	4,668,085	1,293,046	11,904,519	3,581,721
Feb. 15....	20,071,474	4,888,983	1,559,218	11,889,342	2,967,933
Feb. 22....	20,161,260	4,924,906	1,686,689	12,014,605	2,776,665
Mar. 1....	20,251,066	4,903,936	1,808,734	11,830,532	2,645,662
Mar. 9....	20,471,161	5,147,615	1,916,852	12,253,282	2,726,124
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	2,782,085
Mar. 23....	20,796,957	5,483,358	2,140,463	12,413,191	2,849,780
Mar. 30....	21,020,198	5,661,782	2,296,444	13,201,599	2,945,185
Apr. 6....	21,657,152	5,937,595	2,647,399	13,422,318	3,056,181
Apr. 12....	21,656,028	6 133,000	2,675,193	13,784,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,300	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,248,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,973
May 17....	22,592,841	7,019,204	2,351,709	15,548,237	3,055,076
May 24....	22,969,576	6,963,371	2,410,181	15,354,423	3,221,358
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,306	3,565,213
June 21....	23,803,903	6,873,971	2,365,435	15,857,904	3,504,300
June 28....	24,060,708	6,664,681	2,389,252	16,356,129	3,101,201
July 5....	24,311,928	6,835,877	2,431,181	16,566,846	2,986,297
July 12....	23,783,792	6,899,754	2,422,411	15,898,464	3,369,430
July 19....	24,555,873	6,868,596	2,548,945	16,937,535	3,351,204
July 26....	24,570,778	6,956,440	2,514,345	17,196,794	3,291,107
Aug. 2....	24,524,569	7,070,145	2,505,278	17,533,780	3,234,866
Aug. 9....	24,542,291	6,882,660	2,534,652	17,054,076	3,176,333
Aug. 16....	24,829,767	6,875,520	2,522,540	16,929,656	3,378,351
Aug. 23....	24,913,526	6,605,882	2,505,899	16,848,980	3,421,217
Aug. 30....	24,843,131	6,476,406	2,460,645	16,961,496	3,446,195
Sept. 4....	24,988,251	6,635,856	2,520,501	17,426,777	3,370,165
Sept. 13....	24,903,328	6,704,753	2,572,275	17,138,243	3,405,537
Sept. 20....	24,972,044	6,853,374	2,597,781	17,264,823	3,187,622
Sept. 27....	25,138,137	6,909,985	2,591,549	17,509,605	3,020,702
Oct. 4....	25,248,410	7,139,461	2,677,116	17,506,426	3,244,940

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,230,320	$6,196,459	$7,442,142	$2,297,348	$897,551
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,870	2,838,878	816,132
19...	17,818,222	9,942,880	4,224,042	10,996,494	3,526,929	1,266,660
26...	17,741,355	10,320,714	4,336,624	11,579,048	3,951,212	1,363,473
Jan. 2...	18,149,456	10,505,188	4,535,951	11,948,905	4,114,622	1,590,072
9...	14,873,404	10,626,260	4,778,539	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,608	5,095,771	1,552,855
23...	14,559,131	10,693,330	4,767,816	12,578,173	5,201,368	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,136	1,379,908
Feb. 6...	14,490,001	11,187,398	5,037,906	14,539,408	5,934,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,368,835	6,624,657	1,283,609
20...	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,084
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,832,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,847	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,434	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,686	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,453,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,634	15,658,182	9,321,352	1,410,349
17...	16,480,547	10,854,012	7,685,539	15,640,948	9,035,522	1,381,527
24...	16,094,721	10,798,455	7,828,399	15,589,151	9,221,277	1,473,994
May 1...	15,933,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,882
8...	15,459,435	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,638	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,534	10,257,171	7,965,484	16,007,939	8,269,260	1,102,648
12...	12,823,721	10,312,237	7,943,819	15,464,347	8,533,964	1,009,870
19...	12,374,123	10,208,900	7,645,844	15,714,302	8,720,257	1,119,317
26...	12,390,984	10,423,080	7,323,084	15,676,184	8,110,788	1,034,117
July 3...	12,291,555	10,676,674	7,962,959	16,013,100	7,890,863	1,061,242
10...	12,116,486	10,755,126	7,671,824	14,114,217	6,970,157	1,192,675
17...	11,931,985	10,877,768	7,452,104	14,078,294	7,427,930	1,244,218
24...	11,985,231	10,936,870	7,334,414	13,864,925	6,348,192	1,336,398
31...	12,011,616	10,992,148	7,231,739	15,262,173	6,053,229	1,402,012
Aug. 7...	12,452,664	10,885,005	7,135,389	15,200,271	5,944,132	1,547,831
14...	12,883,216	10,912,975	7,024,587	13,564,756	5,263,035	1,327,951
21...	13,516,161	10,806,910	6,860,289	13,164,598	4,652,889	1,258,843
28...	14,196,661	11,173,021	6,731,599	13,343,938	4,081,875	1,185,562
Sept. 4...	14,392,969	11,285,308	6,828,889	14,636,311	3,853,326	1,139,616
11...	15,323,750	11,621,848	6,853,324	13,684,268	3,855,010	1,220,262
18...	16,121,809	11,804,474	6,704,604	13,682,634	3,654,192	993,280
25...	16,864,950	11,299,625	6,638,594	13,931,777	3,890,649	1,120,727
Oct. 4...	17,470,301	11,163,318	6,722,197	16,161,514	4,899,449	1,226,565

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks
Jan. 11.....	$17,701,725	$565,553	$1,552,822	$2,025,956	$1,838,435
Mar. 15.....	16,925,349	520,828	1,810,787	1,903,082	1,048,930
Apr. 5.....	17,037,949	591 861	1,409,695	1,946,998	1,080,817
19.....	17,169,822	564,033	1,485,226	1,965,316	996,961
May 3.....	17,203,225	566.869	1,393,553	2,068,335	1,089,333
17.....	17,054,877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,555,717	2,088,873	1,208,543
June 21.....	17,345,487	573,317	1,604,850	1,988,496	1,170,711
July 5.....	17,653,908	523,691	1,810,047	2,402,956	1,010,101
July 19.....	17,8 :7,068	466,266	2,039,911	2,079,163	1,145,364
Aug. 2.....	17,780,220	444,165	1,921,812	2,022,092	1,095,396
Sept. 6.....	17,121,639	175,635	1,420,455	935,593	958,242

PITTSBURG BANKS.

		Loans.	Specie.	Circulation.	Deposits.	Due banks
April	12	$5,513,821	$1,194,232	$1,287,095	$1,305,294	$70,236
	19	5,570,585	1,220,633	1,291,091	1,345,062	87,718
	26	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May	3	5,784,492	1,192,216	1,360,551	1,504,549	40,312
	10	5,763,651	1,171,627	1,365,551	1,585,182	74,491
	17	5,737,072	1,191,668	1,373,401	1,491,620	111,260
	24	5,769,868	1,175,334	1,371,586	1,464,767	124,044
	31	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June	7	5,895,461	1,207,637	1,426,586	1,540,926	90,334
	14	5,865,951	1,218,342	1,385,926	1,556,862	108,994
	21	5,836,952	1,223,759	1,366,481	1,571,589	134,480
	28	5,874,782	1,266,195	1,377,096	1,630,570	125,743
July	5	6,014,676	1,246,588	1,436,651	1,699,196	85,698
	12	6,016,509	1,229,883	1,458,776	1,691,758	157,608
	19	6,016,404	1,249,398	1,475,351	1,720,691	165,257
	26	6,077,608	1,256,026	1,439,916	1,708,210	188,551
Aug.	2	6,009,453	1,198,767	1,423,669	1,730,650	188,242
	7	5,975,821	1,236,485	1,378,231	1,788,792	136,835
	14	5,940,451	1,257,921	1,428,856	1,818,617	57,411
	21	5,953,828	1,266,621	1,452,751	1,887,579	182,413
	28	6,008,461	1,257,178	1,435,516	1,884,917	181,392
Sept.	5	5,985,766	1,261,195	1,470,741	1,858,072	142,215
	13	6,056,234	1,278,341	1,456,768	1,916,852	162,709
	20	6,089,536	1,272,874	1,495,741	1,842,590	159,734
	27	6,054,505	1,302,584	1,506,073	1,835,375	178,532
Oct.	4	6,096,979	1,445,575	1,540,098	1,908,049	138,940

ST. LOUIS BANKS.

		Exchange.	Circulation.	Specie.
April	10	$1,255,894	$1,788,970	$1,673,628
	17	1,161,065	1,793,945	1,720,728
	24	1,250,295	1,832,915	1,770,882
May	8	1,369,816	1,240,431	1,959,823
	15	1,494,025	1,864,960	2,161,503
	22	1,547,938	1,825,810	2,225,285
	29	1,543,531	1,921,475	2,396,027
June	5	1,557,119	2,087,890	2,452,141
	12	1,471,190	2,101,405	2,536,707
	19	1,459,735	2,161,985	2,465,372
	26	1,417,840	2,005,505	2,484,398
July	3	1,523,179	2,246,835	2,320,758
	10	1,445,704	2,260,560	2,315,635
	17	1,490,876	2,190,955	2,322,245
	24	1,494,116	2,161,870	2,238,498
	31	1,487,256	2,159,540	2,169,387
Aug.	7	1,581,723	2,079,225	2,108,988
	14	1,609,067	1,932,160	2,081,197
	21	1,695,299	1,882,625	2,026,841
	28	1,766,798	1,943,735	2,043,783
Sept.	4	1,734,169	1,975,760	1,995,312
	11	1,848,603	1,928,710	1,885,317
	18	1,970,955	1,650,430	1,708,042
	25	2,033,244	1,525,180	1,668,182
Oct.	4	2,016,967	1,452,893	1,736,080

BOSTON BANK DIVIDENDS—1857 AND 1858.

COMPILED FOR THE MERCHANTS' MAGAZINE BY JOSEPH G. MARTIN, COMMISSION STOCK BROKER, 10 STATE-STREET, BOSTON.

The following table presents the capital of each bank, together with the last four semi-annual dividends, and the amount paid October 4th, 1858; also the

market value of each stock, (dividend off,) April and October, 1857, and April and October, 1858. This table shows the current prices previous to the panic of 1857, the low rates touched in October of that year, and the subsequent reaction, in some cases higher even than before. The changes in the dividends from April last, are, the Atlantic an increase of ½ per cent, Merchants' and Union a decrease of ½ per cent, and Shawmut 1 per cent less.

The Hide and Leather Bank commenced operations April 13, 1858, capital $1,000,000, of which $937,600 has already been paid in, and the balance will be by October 5. The bank pays interest on instalments, averaging 3 per cent for six months on about $675,000. The Bank of Mutual Redemption commenced August 23, on $500,000 paid in.

Banks.	Capital stock.	Dividends. 1857. Apr.	Oct.	1858. Apr.	Oct.	Amount, Oct., '58.	Value of stock, dividend off. 1857. April.	Oct.	1858. April.	Oct.
Atlantic.....	$500,000	3	3	3	3½	$17,500	98	95	101	104½
Atlas.....	500,000	4	3½	4	4	20,000	107	100	106	106
Blackstone.....	750,000	4	4	3½	3½	26,250	104	95	101½	103½
Boston, (par 50)..	900,000	4	4	4	4	36,000	58	55	57½	59
Boylston.....	400,000	4½	4½	4½	4½	18,000	111½	106	108½	111½
Broadway.....	150,000	4	3½	3	3	4,500	101	95	95	98
City	1,000,000	3½	3½	3½	3½	35,000	104½	95	104½	105
Columbian	750,000	3½	3½	3½	3½	26,250	104½	95	104	106½
Commerce	2,000,000	3½	3½	3½	3½	70,000	100½	83	98½	101
Eagle	700,000	4	4	4	4	28,000	108	104	109	111
Eliot.....	600,000	3½	3½	3½	3½	21,000	100	85	100	103½
Exchange.....	1,000,000	5	5	5	5	50,000	117	104	116	120
Faneuil Hall.....	500,000	4	4	4	4	20,000	109	102	108	109½
Freeman's.....	400,000	5	5	4	4	16,000	117	108	114	112
Globe	1,000,000	4	4	4	4	40,000	118	104	113½	114
Granite	900,000	3½	3	3	3	27,000	100	90	97½	98
Hamilton	500,000	4	4	4	4	20,000	118	108	116	120
Hide & Leather.	675,000		new		3	20,250		new		102
Howard	500,000	3½	3	3	3	15,000	95	85	96	98½
Market, (par 70).	560,000	5	5	4	4	22,400	83	76	80	82
Mass'tts, (p. 250)	800,000	$8	$8	$8	*$8	25,600	255	240	252	262
Maverick.....	400,000	3	3½	3½	3½	14,000	90	80	91½	94½
Mechanics'	250,000	4	4	4	4	10,000	108	102	106	108
Merchants'	4,000,000	3½	3½	3½	3	120,000	103½	75	99½	102
National.....	750,000	3½	3½	3½	3½	26,250	100	90	97½	100
New England...	1,000,000	4	4	4	4	40,000	111	101	111	112½
North	750,000	3½	3	3	3	22,500	97½	90	96	97
North America .	750,000	3½	3½	3	3	22,500	104½	95	99½	102
Shawmut.....	750,000	4	4	4	3	22,500	102	95	101	104
Shoe & Leather.	1,000,000	4½	4½	4½	4½	45,000	114½	105	114½	118½
State, (par 60)...	1,800,000	4	3½	3½	3½	63,000	66	63	67	68
Suffolk.....	1,000,000	5	5	5	5	50,000	128	120	129	127
Traders'.....	600,000	3½	3½	3	3	18,000	101½	85	97	98½
Tremont.....	1,250,000	4	4	4	4	50,000	111	103	110	111½
Union.....	1,000,000	4	4	4	3½	35,000	110	102	110	111½
Washington	750,000	4	3½	3½	3½	26,250	104	97	104½	107
Webster.....	1,500,000	3½	3½	3½	3½	52,400	102	90	102½	104
October, 1858.	$2,685,000					$1,176,250				
April, 1858.	31,960,000					1,186,000				
October, 1857.	31,960,000					1,204,350				
April, 1857.	31,960,000					1,229,100				

The following dividends and interest are also payable at the dates given. In addition to these, early in October is the usual period for dividends by the Boyl-

* The dividend of the Massachusetts Bank is 3 1-5 per cent, (par $250,) equal to $8 per share.

ston, City, Eliot, Manufacturers', Merchants', National, Neptune, Quincy, Warren, and Washington Insurance Companies, as also the Boston Exchange Company, a quarterly dividend of probably 1¼ per cent, adding, in round numbers, over $200,000, and making the total to be paid out in October nearly $2,000,000.

Payable.	Companies.	Capital.	Div.	Amount.
1st	Boston Steam Flour Mills bonds	$100,000	8	$8,000
1st	Boston city bonds	Interest.	.	80,000
1st	Cambridge (horse) Railroad	100,000	4¼	7,200
1st	Massachusetts State bonds	Interest.	.	20,750
1st	Manchester and Lawrence Railroad bonds	200,000	8	6,000
1st	Michigan Central Railroad bonds	Interest.	.	171,878
1st	Michigan Central Railroad bonds	Princip'L	.	39,250
4th	New England Glass Company	500,000	8	15,000
1st	Northampton Bridge Company	38,000	1½	578
1st	Ogdensburg 1st 7's, (April coupon)	1,500,000	3½	52,500
1st	Philadelphia, Wilmington, and Baltimore Railroad	5,600,000	3	168,000
4th	Shoe and Leather Fire and Marine Insurance Comp'y.	100,000	4	4,000
	Total			$568,156

PUBLIC DEBT OF MASSACHUSETTS AT THE PERIODS NAMED.

	January 1st. 1855.	1856.	1857.	1858.
Funded State debt	$695,000	$769,000	$1,139,000	$1,314,000
Temporary loan	354,937	662,337	397,000	306,500
Money not called for	8,125	15,825	17,125	18,955
Total debt for which the State is originally liable	$1,058,062	$1,447,162	$1,553,125	$1,639,455
Scrip loaned to sundry railroad corporations, for which they are originally liable	$5,049,555	$5,049,555	$5,049,555	*$4,949,555
Scrip issued for Western R. R. shares covered by a sinking fund of greater amount	995,000	995,000	995,000	†.....
Nominal public debt, all sorts	$7,102,167	$7,494,717	$7,597,680	$6,589,010

FINANCES OF TENNESSEE.

The comparative value of taxable property in Tennessee has been as follows :—

	1850.	1856.	Increase.
Land	$84,110,174	$139,378,342	$55,268,268
Slaves	55,441,455	82,319,723	26,878,268
Town lots	12,811,177	27,039,565	14,228,388
Other taxables	7,195,377	11,581,981	4,386,604
Total	$159,558,183	$260,319,611	$100,761,428

* $100,000 having been paid by the Boston and Maine Railroad Corporation.

† The sinking fund of more than a million dollars, provided many years previously, having been used to cover this scrip, that being the purpose for which the fund was designed.

These two items, for which of course no taxation was required, make the whole reduction of debt.

The total increase of debt, on the other hand, as appears above, was $581,398 in three years, equal to nearly 60 per cent upon the amount of debt for which the Commonwealth is originally liable.

OPERATIONS OF THE BRANCH MINT FOR THE LAST FISCAL YEAR.

A detailed statement of the operations of the United States Branch Mint in San Francisco during the government fiscal year ending 30th June, 1858, was published in the *Alta California* of the 5th inst. The following is a condensation of the statement, giving at a glance all the facts interesting or valuable for present or future reference :—

GOLD MOVEMENT.

Number of deposits	10,740
Weight of deposits after melting.....ozs.	1,034,285
Value	$19,104,370
Silver contained in same	115,329
Mint charge for coining	92,035
Mint charge for refining	117,251
Mint charge for making bars	2,047
Premium paid depositors on silver contained in gold	4,894
Paid depositors	19,012,760
Total coinage	18,459,800

The coinage was as follows :—

Double-eagles	$17,718,800
Eagles	278,000
Half-eagles	293,000
Three-dollar pieces	27,000
Quarter-eagles	123,000
Dollar pieces	20,000
Total	$18,459,800

The deposits of each month in the year were as follows, from which it will be seen that during March, April, May, and June, the mines were the most productive :—

DEPOSITS.

	No. deposits.	Weight after melting, ozs.	Value.
July	27	50,062	$949,431
August	979	86,689	1,580,359
September	1,241	99,029	1,806,519
October	1,296	100,657	1,828,272
November	298	28,461	515,057
December	470	35,997	656,886
January	458	40,001	732,766
February	694	77,770	1,421,593
March	1,331	120,760	2,228,588
April	1,376	120,744	2,223,905
May	1.860	154,159	2,896,127
June	1,210	119,951	2,264,860
Total	10,740	1,034,284	$19,104,369

The average fineness of the deposits during the year was 893.2, or 16.8 thousandths below the standard of United States coin.

During January, unparted bars worth $261,737 41 were made; during February, $228,522 07; during March, $326,034 17. Total during quarter, $816.295 93.

The silver coinage executed, and bars made, during the year amounted to $158,714, distributed among the several denominations, as follows :—

Half-dollars	$109,000
Quarter-dollars	15,750
Dimes	3,000
Bars	30,964
Total	$158,714

The Mint was closed for settlement from the 1st to the 23d of November, 1857.

The total value of the deposits of gold and silver, during the year, was $19,320,893 85.

The total value of the coins and bars made was $19,434,809 28.

On the profit and loss account of the purchase of silver, there was a credit of $309 60 for the third quarter of 1857; of $323 75 for the fourth quarter; and $2,507 54 for the first quarter of 1858: and a debit balance of $1,383 83 for the second quarter of 1858; the balance of credit for the year being $1,757 06.

BANKS OF NEW YORK CITY.

The following are the quarterly reports of the New York city banks since the panic:—

LIABILITIES.

	1857. December 26.	1858. March 13.	1858. June 19.
Capital	$65,024,112	$67,033,695	$67,041,182
Circulation	6,279,802	6,584,706	7,080,396
Profits	8,170,760	7,051,828	8,091,406
Due other banks	17,152,207	23,760,646	28,275,873
Due individuals	535,118	296,698	343,184
Treasurer State of New York	431,723	86,819	443,685
Deposits	59,377,069	68,171,425	74,029,883
Miscellaneous	409,679	830,476	480,722
Total liabilities	$157,370,537	$173,376,352	$185,726,331

RESOURCES.

Loans	$97,783,308	$105,487,501	$118,299,388
Overdrafts	95,112	121,350	51,734
Due from banks	4,033,850	3,723,204	5,338,023
Real estate	5,424,647	5,675,847	5,315,368
Specie	26,660,583	33,104,257	31,704,814
Cash items	12,914,769	14,930,929	13,689,788
Stocks, etc.	8,191,419	8,683,406	8,922,278
Bonds and mortgages	366,558	379,409	440,335
Bills of solvent banks	996,930	886,531	904,077
Bills of suspended banks	759	678	727
Expense account	905,044	424,949	559,766
Add for cents	.....	.....	33
Total resources	$157,310,537	$173,376,352	$185,726,331

THE ENGLISH INCOME TAX.

A Parliamentary return shows the number of persons who pay income tax under schedule D, with the amount of assessment. The public will be interested in seeing the figures. The payment was for the year ending 5th of April, 1857:—

Under £100 a year		20,248	£800 and under £900.....			1,745
£100 and under £150.....		120,650	900	"	1,000.....	816
150 "	200.....	40,086	1,000	"	2,000.....	5,423
200 "	300.....	32,665	2,000	"	3,000.....	1,568
300 "	400.....	15,006	3,000	"	4,000.....	773
400 "	500.....	7,407	4,000	"	5,000.....	450
500 "	600.....	5,471	5,000	"	10,000.....	811
600 "	700.....	3,105	10,000	"	50,000.....	444
700 "	800.....	2,066	50,000 and upwards.....			46

The total number assessed was only 258,880, but this return does not include Ireland. Under schedule E we have the number put down at 87,498, with the tax charged upon £100 a year up to £5,000.

VALUATION OF TAXABLE PROPERTY IN KINGS COUNTY, NEW YORK.

The following is the valuation of taxable property in the several wards of Brooklyn and towns of Kings County, as prepared by the Assessors, and returned to the Board of Supervisors, for the year 1858 :—

BROOKLYN.

Wards.	Real.	Personal.	Total.	Increase.	Decrease.
1.....	$5,389,425	$839,247	$6,228,672	.....	$16,450
2.....	3,013,955	1,748,621	4,762,576	16,082	.....
3.....	7,832,850	2,908,421	10,741,271	94,471	.....
4.....	4,793,875	869,149	5,662,024	.....	132,872
5.....	2,569,725	16,904	2,786,626	119,600	.....
6.....	10,059,700	1,224,544	11,304,224	.....	110,491
7.....	8,560,785	43,400	8,604,185	.....	23,942
8.....	3,385,100	211,268	3,596,368	.....	121,830
9.....	6,357,702	204,566	6,562,268	.....	56,843
10.....	8,805,718	303,326	9,109,044	.....	249,846
11.....	9,202,990	365,858	9,568,848	343,019	.....
12.....	3,927,275	24,755	3,952,050	.....	27,200
13.....	5,796,610	1,083,593	6,880,203	.....	334,686
14.....	3,166,915	200,350	3,367,265	52,173	.....
15.....	1,573,503	.....	1,573,603	.....	18,745
16.....	1,668,080	20,000	3,688,080	.....	98,680
17.....	2,203,102	30,719	2,233,821	.....	76,121
18.....	1,563,551	64,000	1,627,551	.....	16,744
19.....	3,065,920	34,753	3,109,673	31,845	.....
Total.....	$88,186,781	$10,212,524	$98,849,275	$657,170	$1,283,920

TOWNS.

New Utrecht.....	$1,573,067	$301,405	$2,874,472	$11,524	.....
Flatbush	1,124,142	510,000	1,634,642	7,490	.....
New Lots	746,915	182,800	929,111	47,370	.....
Gravesend.....	544,241	124,850	669,076	.....	3,040
Flatlands.....	563,351	150,525	713,987	9,237	.....
Total.....	$4,551,716	$1,269,575	$5,821,291	$75,621	$3,040
Grand total..	92,688,497	11,482,099	104,170,566	732,791	1,286,960

The value of real estate and personal property in 1857, in totals, was as follows :—

	Real.	Personal.	Total.
Brooklyn.....	$87,807,150	$11,168,872	$98,976,022
Towns.....	4,434,007	1,314,706	5,748,713
Total.....	$92,241,157	$12,483,578	$104,724,735

STATISTICS OF TRADE AND COMMERCE.

COTTON CROP OF THE UNITED STATES.

The following is the annual statement of the cotton crop from the New York *Shipping List*:—

STATEMENT AND TOTAL AMOUNT FOR THE YEAR ENDING 31ST AUGUST, 1858.

NEW ORLEANS.			1858.	1857.	1856.
Export to foreign ports....bales	1,495,070				
Coastwise.....	164,637				
Stock, 1st Sept., 1858.....	30,280				
		1,689,987			
Deduct received from Mobile....	67,451				
Received from Montgomery, &c.	....				
Received from Florida.....	9,160				
Received from Texas.....	29,596				
Stock, 1st Sept., 1857.....	7,321				
		113,528			
			1,576,409	1,435,000	1,661,433
MOBILE.					
Export to foreign ports.....	387,032				
Coastwise.....	128,013				
Manufactured in Mobile, &c....	1,807				
Stock, 1st Sept., 1858.....	10,495				
		527,347			
Deduct received from N. Orleans	479				
Stock, 1st Sept., 1857.....	4,504				
		4,983			
			522,364	503,177	659,738
TEXAS.					
Export to foreign ports.....	50,388				
Coastwise (and burnt, 70 bales).	94,011				
Stock, 1st Sept., 1858.....	1,899				
		146,248			
Deduct stock, 1st Sept., 1857.....		962			
			145,286	89,882	116,078
FLORIDA.					
Export to foreign ports, Uplands	25,787				
Sea Islands.....	34				
Coastwise, Uplands.....	70,305				
Sea Islands.....	25,651				
Burnt at Apalachicola.....	600				
Stock, 1st Sept., 1858.....	80				
		122,407			
Deduct stock, 1st Sept., 1857.....		56			
			122,351	136,344	144,404
GEORGIA.					
Export to foreign ports, Uplands	159,141				
Sea Islands.....	8,561				
Coastwise, Uplands.....	117,680				
Sea Islands.....	7,417				
Stock in Savannah, 1st Sept., '58	684				
Stock in Augusta, &c.....	1,901				
		295,414			
Deduct received from Florida...	7,768				
Stock in Savannah, 1st Sept., '57	1,926				
Stock in Augusta, &c.....	2,747				
		12,441			
			282,973	322,111	389,445

SOUTH CAROLINA.					
Export from Charleston—					
To foreign ports, Uplands.....	276,547				
Sea Islands.....	22,857				
Coastwise, Uplands.....	115,158				
Sea Islands.....	2,800				
Burnt and manuf. at Charleston.	771				
Stock in Charleston, 1st Sept., '58	11,715				
	429,854				
Export from Georgetown—					
To coastwise ports, Uplands ...	1,918				
		431,772			
Deduct rec'd from Florida, S. Isl.	7,519				
Received from Savannah, S. Isl.	1,575				
Uplands.....	10,783				
Stock in Charleston, 1st Sept., '57	5,644				
		25,521			
			406,251	397,831	495,976
NORTH CAROLINA.					
Export to coastwise ports.....			23,999	27,147	26,098
VIRGINIA.					
Export to foreign ports.....	495				
Coastwise.....	8,942				
Manuf., (taken from the ports)..	15,088				
Stock, 1st Sept., 1858.....	600				
		25,125			
Deduct stock, 1st Sept., 1857.....		420			
			24,705	23,773	20,458
Received at New York, overland, from Tennessee, &c.			3,363	2,023	2,086
" Philadelphia, " " "			3,275	1,236	7,938
" Baltimore, " " "			2,986	1,496	4,191
Total crop of the United States			3,113,962	2,939,519	3,527,845
Increase over crop of 1857					174,443
Decrease from crop of 1856.....					413,883
Increase over crop of 1855					266,623

EXPORT TO FOREIGN PORTS, FROM SEPTEMBER 1, 1857, TO AUGUST 31, 1858.

	To Great Britain.	To France.	To North of Europe.	To other for. ports.	Total.
New Orleans.....bales	1,016,716	236,596	116,304	125,454	1,495,070
Mobile.....	265,461	89,887	21,462	10,219	387,032
Texas.....	33,933	1,689	14,716	.....	50,538
Florida.....	25,771	.....	.....	.....	25,771
Savannah	149,346	7,376	7,680	3,300	167,702
Charleston.....	192,251	35,503	33,126	38,524	299,404
Virginia.....	495	.....	.....	.....	495
Baltimore	164	.....	.....	.....	164
Philadelphia.....	995	.....	.....	.....	995
New York	110,721	12,951	20,308	3,841	147,821
Boston.....	14,110	.....	1,549	4	15,663
Total.....	1,809,966	384,002	215,145	181,342	2,590,455
Total last year.....	1,428,870	413,357	245,798	164,632	2,252 657
Increase	381,096	.....	.....	16,710	337,798
Decrease.....	.....	29,355	30,653	.....	.....

The comparative crops and consumption have been as follows—(For the previous years, see *Merchants' Magazine*, vol. xxxv., page 612.)

	Crop.	U. S. consumption from the ports.	Total U. S. consumption.
1856	3,527,845	652,739	706,412
1857	2,939,516	702,138	770,739
1858	3,113,962	452,185	819,936

The total United States consumption includes estimates of quantities taken from plantations by the Southern factories, and is an estimate merely. If the estimate is admitted, the amount should be added to the crop.

VALUE OF PRODUCE OF THE INTERIOR AT NEW ORLEANS.

The New Orleans *Price Current* has the following :—

The following comparison of the value of the principal products of the interior received at this port from 1st September to 31st August, is compiled from a series of tables which we have yearly prepared for our "annual statement." It will be found to exhibit some interesting facts in regard to our commerce with the South and West :—

	1857–58.	1856–57.	1855–56.
Cotton	$88,127,340	$86,255,079	$70,371,720
Sugar	17,900,608	8,137,360	16,199,890
Tobacco	13,628,327	11,973,645	8,072,775
Flour	7,078,215	9,034,179	8,407,305
Pork	5,769,130	5,859,287	5,584,505
Lard	4,606,630	4,262,958	3,381,278
Lead	696,964	91,455	409,940
Molasses	4,601,015	2,685,309	4,582,242
Bacon	5,665,488	6,772,241	4,570,363
Corn	1,904,211	2,533,237	3,020,031
Whisky	1,001,656	2,329,132	1,785,036
Wheat	802,550	2,827,886	2,782,476
Bagging	463,983	512,448	610,290
Beef	497,490	484,585	824,289
Hemp	344,675	390,090	504,540
Bale rope	1,066,208	1,122,460	1,013,310
Butter	380,275	360,550	395,065
Hay	273,933	296,805	612,350
Hides	309,522	579,411	454,293
Coal	1,250,500	1,150,500	444,150
Potatoes	473,582	185,832	456,390
Staves	747,500	455,000	232,350
Tallow	27,150	28,950	32,265
Feathers	44,300	41,150	32,676
Oats	682,378	629,073	587,180
Corn meal	3,500	4,280	960
Other articles	8,808,416	9,557,967	8,888,412
Total	$167,155,546	$158,061,369	$144,256,081

1854–55	$117,106,823	1849–50	$96,897,873	1844–45	$57,196,122
1853–54	115,836,798	1848–49	81,989,692	1843–44	60,094,716
1852–53	134,283,785	1847–48	79,779,151	1842–43	53,782,054
1851–52	108,051,708	1846–47	90,033,256	1841–42	45,716,045
1850–51	106,924,083	1845–46	77,193,464		

From the above table it results that the total value of all the products received at this port from the interior, from September 1st, 1841, to September 1st, 1858, a period of seventeen years, amounts to $1,693,808,516.

FISHERIES OF MASSACHUSETTS.

Vessels employed	1,145	Cod oil	$60,895
Tonnage	78,070	Capital	3,696,436
Mackerel, bbls. 153,464 .. val.	$1,355,332	Hands employed	10,551
Cod, quintals 439,380	1,413,413	Bushels salt used	424,549

COMMERCE OF CINCINNATI.

The Cincinnati *Price Current* gives its annual tables of the trade of that port, embracing the quantities, average prices, and aggregate values. It will be perceived there is a decrease in the value of the leading articles of imports and exports, but this is not owing to a decrease in the quantity, in the aggregate, but to the great fall in prices of most articles, imported and exported, the past, as compared with the previous, year. The value of the imports and exports for several years compare as follows :—

	Imports.	Exports.		Imports.	Exports.
1851-2....	$41.256,199	$33,234,896	1855-6....	$75,296,901	$50,744,786
1852-3....	51,230,644	36,266,108	1856-7....	77,090,146	55,642,171
1853-4....	65,730,029	45,432,780	1857-8....	74,848,758	47,407,095
1854-5....	67,501,341	38,777,394			

There can be no doubt that, had the prices for the various articles been the same, the total value of the imports and exports the past year would have exceeded last year. We would state that the figures do not approximate to the value of the entire commerce of Cincinnati at all; all they show is the comparative increase or decrease, and are not of much use beyond this. The total value of the imports cannot be less than eighty-five million dollars, and of the exports than ninety millions.

VALUE OF PRINCIPAL IMPORTS INTO THE PORT OF CINCINNATI FOR THE YEARS ENDING AUGUST 31ST, 1857 AND 1858.

Articles.	Quantity.	Average price.	Total value.	Total last year.
Apples, green .....bbls.	40,023	$1 00	$40,023	$37,410
Beef.....	376	12 50	4,700	9,534
Beef.....trcs.	25	18 50	462	21
Bagging.....pieces	98	3 00	294	....
Barley.....bush.	400,967	65	260,628	609,696
Beans.....	23,839	1 50	35,759	88,730
Butter.....bbls.	14,525	30 00	435,750	374,616
Butter .....firkins and kegs	17,945	10 25	183,936	173,088
Blooms.....tons	3,398	58 00	197,094	366,240
Bran, &c..... .....sacks	164,814	75	123,610	118,793
Candles.....boxes	1,421	6 40	9,694	15,758
Corn.....bush.	1,090,236	35	381,582	920,349
Corn meal	4,840	50	2,420	5,148
Cider.....bbls.	1,262	5 00	6,310	5,466
Cheese.....casks	78	21 00	1,638	6,188
Cheese..... .....boxes	199,578	3 20	638,649	635,842
Cotton.....bales	18,754	58 00	1,087,732	1,052,464
Coffee .....sacks	129,129	18 00	2,325,323	1,843,290
Codfish.. .....drums	2,238	20 00	64,903	48,994
Cooperage..... .....pieces	208,291	1 15	223,784	161,406
Eggs.....boxes and bbls.	28,674	6 00	172,044	126,553
Flour.....bbls.	633,818	3 90	2,469,940	2,846,761
Feathers .....sacks	3,871	39 00	150,969	146,944
Fish, sundries..... ....bbls.	14,692	12 50	183,550	176,670
Fish, sundries.....kegs and kits	9,119	3 75	34,196	36,904
Fruits, dried .....bush.	46,547	2 10	97,648	97,594
Grease .....bbls.	5,815	19 50	113,392	191,400
Glass.....boxes	34,375	2 15	417,656	78,902
Glassware.....packages	32,558	4 40	143,255	183,167
Hemp.....bundles and bales	6,611	15 00	99,165	178,600
Hides, loose.....No.	105,261	3 25	342,098	295,120
Hides, green .....lbs.	32,639	5	1,631	2,480
Hay.....bales	39,812	2 50	99,530	187,596
Herrings.....boxes	11,285	45	5,078	5,065

Articles.	Quantity.	Average price.	Total value.	Total last year.
Hogs.....head	429,870	$10 50	$4,513,530	$6,067,477
Hops.....bales	5,088	20 00	101,760	106,750
Iron and steel.....pieces	279,907	1 60	447,851	1,349,598
Iron and steel.....bundles	110,980	4 00	443,920	482,320
Iron and steel.....tons	5,318	80 00	425,440	494,480
Lead.....pigs	59,866	6 00	359,596	398,632
Lard.....bbls.	46,651	24 00	1,619,624	795,555
Lard.....kegs	8,629	4 75	30,987	57,937
Leather.....bundles	17,087	14 00	239,218	304,560
Lemons.....boxes	9,689	3 75	36,334	28,500
Lime.....bbls.	62,847	1 00	62,847	68,755
Liquors.....hhds. and pipes	1,391	210 00	292,110	547,650
Merchandise and sundries.packages	969,505	35 00	33,932,675	30,783,458
Merchandise.....tons	3,411	620 00	2,114,820	1,287,680
Molasses.....bbls.	72,369	10 00	723,690	961,004
Malt.....bush.	60,692	1 00	60,692	194,923
Nails.....kegs	84,148	3 75	315,555	533,021
Oils.....bbls.	16,150	40 40	652,460	514,345
Oranges.....boxes and bbls.	11,669	4 50	52,510	66,585
Oakum.....bales	3,485	14 50	49,807	82,530
Oats.....bush.	598,950	35	206,482	256,469
Oil cake.....lbs.	1,644,000	1¼	20,550	3,219
Pork and bacon.....hhds.	5,954	65 00	387,010	261,120
Pork and bacon.....tierces	1,487	20 00	29,740	43,342
Pork and bacon.....bbls.	22,291	14 00	310,074	354,834
Pork and bacon, in bulk.....lbs.	19,613,113	5½	1,078,721	897,478
Potatoes.....bbls.	44,686	1 00	44,686	104,708
Pig-iron.....tons	23,153	26 00	601,978	884,520
Pimento and pepper.....bags	5,764	12 00	69,168	53,712
Rye.....bush.	64,385	60	38,631	102,436
Rosin, tar, &c.....bbls.	13,905	3 00	41,715	21,226
Raisins.....boxes	25,739	4 00	102,956	66,827
Rope, twine, &c.....packages	8,216	7 00	57,512	57,637
Rice.....tierces	3,794	33 00	125,202	162,880
Sugar.....hhds.	44,976	75 00	3,373,200	1,917,600
Sugar.....bbls.	46,247	20 00	924,940	541,175
Sugar.....boxes	1,070	55 00	58,850	91,326
Seed, flax.....bbls.	42,413	3 00	127,239	94,954
Seed, grass.....	17,388	20 00	347,760	275,376
Seed, hemp.....	828	3 00	2,484	2,086
Salt.....sacks	59,601	1 40	83,441	222,454
Salt.....bbls.	73,120	1 50	109,680	282,427
Shot.....kegs	1,652	20 00	32,040	38,249
Tea.....packages	14,793	39 00	576,927	526,510
Tobacco.....hhds.	4,476	105 00	469,980	532,070
Tobacco.....bbls.	4,603	9 00	41,427	29,293
Tobacco.....boxes and kegs	33,745	25 00	843,625	1,106,838
Tallow.....bbls.	3,478	24 00	83,472	127,868
Wines.....bbls. and quarter-casks	2,806	65 00	182,390	254,310
Wines.....baskets and boxes	8,408	10 00	84,080	121,320
Wheat.....bush.	1,211,543	85	1,029,811	939,039
Wool.....bales	3,115	25 00	77,875	192,928
Whisky.....bbls.	411,229	10 00	4,112,290	6,914,349
Yarns, cotton.....packages	11,820	1 50	17,730	25,716
Yarns.....lbs.	3,170	20	634	1,806
Lumber.....feet	80,000,000	1¼	1,000,000	1,350,000
Coal.....bush.	15,260,000	8	1,220,800	1,450,000
Shingles.....M.	33,750	4 00	135.000	149,600
Staves, wood, and stone, estimated.	.....	. ..	400,000	460,000
Total...			$74,348,758	$77,950,146

VALUE OF PRINCIPAL EXPORTS FROM THE PORT OF CINCINNATI FOR THE YEARS ENDING AUGUST 31st, 1857 AND 1858.

Articles.	Quantity.	Average price.	Total value.	Total last year.
Apples, green ..... bbls.	9,396	$1 25	$11,745	$15,002
Alcohol	59,071	21 00	1,240,491	1,178,205
Beef	15,850	12 50	198,125	262,766
Beef ..... tierces	4,568	18 50	84,508	106,197
Beans ..... bbls.	4,783	4 50	20,328	28,416
Brooms ..... doz.	18,618	1 50	27,927	50,218
Butter ..... bbls.	2,949	30 00	88,470	92,484
Butter ..... firkins and kegs	29,007	10 25	304,573	262,956
Bran, &c ..... sacks	27,705	75	20,754	14,091
Bagging ..... pieces	2,829	3 00	8,478	3,868
Corn ..... sacks	19,152	90	17,236	101,887
Corn meal ..... bbls.	682	2 25	1,534	2,858
Cheese ..... casks	38	21 00	798	2,522
Cheese ..... boxes	124,854	3 20	399,532	418,960
Candles	155,257	6 40	993,644	1,334,972
Cattle ..... head	17,115	60 00	1,026,900	1,513,596
Cotton ..... bales	19,381	58 00	1,124,098	743,568
Coffee ..... sacks	68,744	18 00	1,287,392	894,492
Cooperage ..... pieces	136,079	1 00	136,079	115,899
Eggs ..... bbls.	15,384	11 20	172,290	104,380
Flour	609,215	3 90	2,375,938	2,396,536
Feathers ..... sacks	2,558	36 00	128,088	165,550
Fruit, dried ..... bush.	9,811	2 25	43,450	43,602
Grease ..... bbls.	3,703	18 50	68,595	136,680
Grass-seed	7,465	20 00	149,300	168,096
Horses ..... head	2,417	130 00	314,210	334,040
Hay ..... bales	2,585	2 25	5,810	15,460
Hemp	1,529	20 00	30,580	42,450
Hides ..... lbs.	362,391	12	43,486	559,635
Hides ..... No.	91,945	3 50	321,807	244,043
Iron ..... pieces	436,689	1 40	681,504	1,416,807
Iron ..... bundles	88,603	3 45	288,430	2,366,603
Iron ..... tons	3,760	72 00	624,240	1,285,120
Lard ..... bbls.	53,384	24 00	1,281,216	998,703
Lard ..... kegs	53,578	4 75	254,495	283,750
Lard-oil ..... bbls.	40,525	36 00	1,458,900	1,817,480
Linseed-oil	1,000	28 00	28,030	32,292
Molasses	43,233	11 00	475,563	518,672
Oil cake ..... tons	2,492	26 00	64,792	27,230
Oats ..... sacks	5,200	90	4,680	43,822
Potatoes, &c ..... bbls.	83,881	1 50	125,821	58,469
Pork and bacon ..... hhds.	48,247	75 00	3,243,525	2,725,760
Pork and bacon ..... tierces	34,648	24 00	831,552	852,150
Pork and bacon ..... boxes	113,594	15 00	1,703,910	1,814,688
Pork and bacon ..... bbls.	21,318	32 00	682,176	1,016,464
Pork and bacon, in bulk ..... lbs.	618,853	6½	40,192	67,559
Rope, twine, &c ..... packages	12,802	6 25	80,012	57,078
Soap ..... boxes	51,708	4 00	206,832	208,940
Sheep ..... head	4,363	1 75	7,635	12,974
Sugar ..... hhds,	29,142	80 00	2,341,360	1,592,400
Salt ..... bbls.	44,291	2 00	88,582	97,980
Salt ..... sacks	21,524	1 50	32,286	15,626
Seed, flax ..... bbls.	2,362	3 00	7,086	3,438
Sundry merchandise ..... packages	1,381,990	7 50	10,364,925	11,700,462
Sundry merchandise ..... tons	6,848	625 00	4,280,900	3,671,040
Sundry liquors ..... bbls.	28,706	40 00	1,148,240	3,064,350
Sundry manufactures ..... pieces	113,640	4 00	454,560	1,748,424
Sundry produce ..... packages	185,065	3 50	647,727	611,886
Starch ..... boxes	27,710	3 00	83,130	143,428
Tallow ..... bbls.	2,304	25 00	57,600	195,636
Tobacco ..... kegs and boxes	32,279	22 00	710,138	926,046

Articles.	Quantity.	Average price.	Total value.	Total last year.
Tobacco.....hhds.	4,588	$105 00	$481,741	$445,940
Tobacco.....bales	5,798	10 25	59,429	64,086
Vinegar.....bbls.	11,566	4 00	46,264	41,628
Whisky.....	268,226	10 25	2,749,316	4,704,557
Wool.....bales	4,586	24 00	110,064	229,760
Wool.....lbs.	.....	35	.....	634
White lead.....kegs	60,582	2 25	136,309	138,260
Castings.....pieces	48,617	4 50	198,776	471,130
Castings.....	2,796	80 00	223,780	348,320
Wheat.....sacks	315,830	1 60	505,328	473,904
Total.....			$47,407,095	$55,642,171

COMMERCE OF MEMPHIS, TENNESSEE.

The following is a report of the trade of the port of Memphis for the year ending June 30, 1858 :—

	No.	Revenue.
Steamboat arrivals and departures during the year....	2,279	$18,906 60
Flatboats arrived during the year.....	379	4,780 62
Total revenue collected.....		$23,687 22

TONNAGE.

	No.	Tonnage.
Regular packets in the trade the past year.....	40	15,714
Landings of transient boats.....	1,610	885,500
Total tonnage.....		901,214

EXPORTS, FOREIGN IMPORTS, AND VALUE.

	Amount.	Est. value.
Cotton.....bales	233,081	$11,654,050
Wheat shipped..... .....bush.	81,361	73,225
Flour.....bbls.	26,371	131,850
Tobacco.....hhds.	131	9,825
Estimated value of furs, peltries, and hides.....	.....	100,000
Value of exports.....		$11,938,959
Value of foreign imports bonded at Memphis the past year..		302,734

NUMBER OF BALES OF COTTON SHIPPED FROM JULY 1, 1857, TO JUNE 30, 1858.

New Orleans.... 204,281 | Ohio River ..... 28,014 | St. Louis..... 786

EXPORT OF COTTON FROM MOBILE.

The Mobile *Journal of Commerce Letter Sheet* gives the following :—

EXPORTS OF COTTON TO FOREIGN PORTS, WITH THE WEIGHT AND VALUE ATTACHED, FOR THE YEAR ENDING AUGUST 31ST, 1858.

	Bales.	Pounds.	Value.
Great Britain, in American vessels	187,177	96,952,505	$10,943,034
" in foreign vessels...	78,287	40,499,798	4,309,551
Total to Great Britain.....	265 464	137,452,303	$15,252,585
France.....	89,887	46,689,533	5,045,660
Trieste and Sardinia	7,419	3,826,928	415,221
Sweden.....	3,150	1,634,490	174,598
Hamburg.....	6,047	3,193,540	389,785
Russia.....	10,907	5,752,860	704,014
Holland.....	1,358	725,244	91,735
Spain.....	2,800	1,375,873	165,427
Total, 1857.....	387,032	200,650,771	$22,239,025
Total, 1856.....	485,035	248,730,100	21,114,661

COMMERCIAL REGULATIONS.

GENERAL REGULATIONS TO COLLECTORS.

The following regulations are prescribed by the Treasury Department, August 24, 1858, for the government of collectors and other officers of the customs :—

Misunderstandings as to the relative obligations and duties of the several officers of the customs not unfrequently occur, and the Department thinks it proper on several points to add to, or make more specific, the existing regulations on the subject.

COLLECTOR AND APPRAISERS—While the appraisers are to exercise their own judgment, on the most reliable information accessible to them, in determining, under the law and regulations of the Department, the value of imports for the assessment of duties, they are under the general control and direction of the collector in regard to the arrangement and transaction of the business in their department of the customs. All new regulations made by the collector for the government of the appraisers' department, should be first submitted by him to the appraisers for such comments as they may deem proper, and will be submitted, with the remarks of the appraisers, to this Department for approval. All nominations, or removals from office, by the appraisers should be submitted, through the collector, to this Department, in order to the proper exercise, on its part, of its supervisory power over the collection of the revenue. It is the duty of the collector, where the subordinates of the appraisers appear neglectful of their duties, or otherwise unfaithful or incompetent, to call the attention of the appraisers to the fact, and if the evil is not cured, to report the same to the Department.

COLLECTOR AND SURVEYOR.—The surveyor of the port will report to the collector in writing any default of subordinates serving under him, but who are appointed by the collector ; and should any such subordinate, who has been suspended by the surveyor, be restored by the collector, he (the collector) will report the case (together with the surveyor's report to him) to the Department for its consideration and action.

APPOINTMENT OF SUBORDINATE OFFICERS OF THE CUSTOMS.

It is deemed proper to state, for the information of the collectors, naval officers, surveyors, and appraisers generally, that, in accordance with existing regulations, no subordinate officers of the customs can be removed or appointed without the previous sanction of the Secretary of the Treasury. When the removal of an officer is thought necessary, the case will be reported to the Secretary, with the reasons, and a nomination of the person desired to be employed in his stead will be submitted, and, on receiving the Secretary's approbation, the necessary oath will be administered, and the officer will then (and not before) be legally qualified to enter upon the duties of the office. Compensation cannot be allowed until these requirements are complied with, and cannot in any case commence before the date of the oath. When additional officers are thought necessary, the grounds of such necessity will be reported fully, and the rate of compensation proper to be allowed ; and if the Secretary approves of the proposed increase, the persons selected will be nominated, and the same course as above prescribed will be pursued. Where the urgency of the case requires that the employment of an officer be discontinued before the special sanction of the Secretary can be obtained, the officer will be suspended, and the case reported to the Secretary for approval. The duties of a deputy terminate with those of the collector, naval officer, or surveyor by whom he was appointed, and if continued in office, he must be renominated by the newly-appointed principal, and the nomination approved by the Secretary. Other subordinate officers are appointed without limitation, and do not require a renomination to hold over. When the office of deputy collector is connected with that of inspector, or other office, and he is paid in the latter

capacity, the office of deputy only becomes vacant. In submitting nominations, attention is called to General Regulations, articles 576 and 577, page 321, applied to naval officers, surveyors, and appraisers, in Circular Instructions No. 4, page 14. And to employment of aids to the revenue, article 609, page 339; and to appointment of relations, article 615, page 342.

LEAVE OF ABSENCE.

Upon making application for leave of absence, the collector, naval officer, or surveyor will state the necessity of the case, the time he desires his leave to commence, and when to terminate, and, upon receiving the Department's sanction, he will report the name of the person he may appoint as his "special deputy," under the provisions of the 22d section of the act of 2d March, 1799, and at the same time, he will transmit to the Commissioner of Customs a certified copy of his appointment, with his official oath. Appraisers will forward to the Department their applications for leave of absence through the collector of the district, who will also state his views on the subject.

CERTIFICATE REQUIRED IN CASES WHERE THERE ARE NO CUSTOM-HOUSES AT THE FOREIGN PORT OF EXPORTATION—ADDITIONAL TO ARTICLE 246, TREASURY REGULATIONS OF FEBUARY 1, 1857.

In cases where the certificate of the custom-house officer at the foreign port of shipment, required for the free entry of manufactures or productions of the United States exported and brought back, cannot be obtained for the reason of there being no such officer at the foreign port of exportation, a certificate of the foreign recipient of the goods, or his representative, having a knowledge of the facts, duly authenticated by the consul of the United States, may be admitted in lieu thereof—all the other requirements of the law and treasury regulations being carefully observed and enforced.

PACKAGES DO NOT ENTER INTO THE VALUE OF THE SUGAR.

The value of sugar imported from Cuba is to be ascertained and appraised without reference to the packages in which it is contained, whether boxes or hogsheads, and to this value is to be added the cost of the packages.

CLAIMS FOR REFUNDING.

Collectors are requested to refer parties applying for return of duties paid to the subjoined regulation, transmitted for the information and guidance of those to whom it may apply:—Hereafter, in all cases where parties allege to have claims for return of duties paid in error, illegal exactions, or otherwise, the application must be made direct to this Department, by the owner or importer; upon receipt of which, a report of the case, when requisite, will be called for from the collector, and, upon its examination, the decision of the Department will be rendered. The instructions issued under date of 19th November, 1857, and all others relating to the preparation and transmission of certified statements by collectors, are superseded by the above.

CASKS OF AMERICAN MANUFACTURE.

It has been decided by the Department that casks of American manufacture exported empty from the United States, and afterwards imported filled with molasses, are not entitled to entry free of duty; and, generally, all bags, boxes, casks, or other envelops, manufactured in the United States, of domestic or foreign materials, exported empty and returned filled, or exported filled and returned empty, are, on importation into the United States, liable to duty, not being in the same condition as when exported, as required by the provisions of schedule I of the existing tariff in order to be entitled to exemption from duty.

LABELS.

TREASURY DEPARTMENT, July 29, 1858.

SIR :—I acknowledge the receipt of your report, of the 18th ultimo, on the appeal of Messrs. Robert H. Berdell & Co. from your decision as to the rate of duty chargeable, under the tariff of 1857, on two cases of "labels" imported per steamer "Africa" from Liverpool. It appears that you exacted a duty of 24 per cent on the articles in question, as manufactures of paper under the classification in schedule C of "manufactures of paper, or of which paper is a component material, not otherwise provided for," while the appellants claim to enter them at a duty of 15 per cent, as unenumerated in any schedule of the tariff of 1857. The samples transmitted with your report of the 10th instant are composed of paper, wholly or in part, colored and ornamented, and some of them, in the form of cards, enameled; and in the opinion of the Department they were properly classified by you under schedule C, as a manufacture of paper, or of which paper is a component material, not otherwise provided for, and the duty correctly assessed at 24 per cent. Your decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

"CUDBEAR."

TREASURY DEPARTMENT, July 31, 1858.

SIR :—I have carefully examined your report, of the 22d instant, on the appeal of Messrs. Clark & McConnin from your assessment of duty of 8 per cent on "cudbear," under schedule G of the tariff of 1857. It is conceded that the article in question is not in a crude state, and is used in the process of dyeing. "Cudbear" was designated by name in schedule G of the tariff of 1846, subject to a duty of 10 per cent. In schedule E, of that tariff, and subject to a duty of 20 per cent, were embraced "articles not in a crude state, used in dyeing or tanning, not otherwise provided for." The 2d section of the tariff act of 1857 transfers to schedule H, subject to duty at the reduced rate of 4 per cent, "articles not in a crude state, used in dyeing or tanning, not otherwise provided for;" and the appellants contend that "cudbear" being so used, and not being in a crude state, is thus transferred, and should be made chargeable with a duty of 4 per cent in that schedule. It is obvious that this transfer can embarce only such articles in a crude state used in dyeing or tanning as were not provided for elsewhere in the act. "Cudbear" being provided for by name in schedule G was not transferred, but remains in that schedule in the tariff of 1857, subject to the duty of 8 per cent exacted by the collector, whose decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

ROOT OF QUICK GRASS.

TREASURY DEPARTMENT, August 21, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 11th ultimo, in reference to the rate of duty assessed by you on an article described as the "root of quick grass," imported by Charles Boeckl, Esq., who has appealed from your decision to the Department. The article in question is a root used in the manufacture of brushes, and imported in a condition to be so used. The Department cannot concur with the appellant that it is entitled to entry free of duty, under the classification in schedule I of the tariff of 1857 of "trees, shrubs, bulbs, plants, and roots, not otherwise provided for," that provision having reference to articles imported for planting and propagation of plants. This article, in the opinion of the Department, was correctly referred by you to the classification in schedule D of the tariff of 1857, of "jute, sisal grass, coir, and other vegetable substances, unmanufactured, not otherwise provided for," and subjected to duty at the rate of 19 per cent; and your decision to that effect is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

GROUND PEAS OR PEA NUTS.

TREASURY DEPARTMENT, August 4, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 28th ultimo, on the appeal of Mr. E. D. Kimball from your decision assessing a duty of 15 per cent on an importation of ground peas or pea nuts, as articles unenumerated in the tariff of 1857, the appellant contending that they are entitled to entry at the rate of 8 per cent, as "fruit," under the classification in schedule G of that tariff of "fruits, green, ripe, or dried." The Department concurs with you in the opinion, that, in consideration of the manner of production and growth, as well as the character of the article itself, it can hardly be classed either as a "fruit" or "nut" in the restricted and peculiar sense in which those terms are used in commercial or common parlance, and that it more nearly resembles the natural productions of the soil known as "vegetables," such as beans, peas, and other leguminous products, with which it is classed by botanists. Ground peas or pea nuts may therefore be regarded as liable to the duty of 15 per cent under the classification in schedule E of the tariff of 1857, of "berries, vegetables, and flowers, not otherwise provided for," or be treated as an unenumerated article, and chargeable, as such, with the same rate of duty under the 1st section of that act. According to either classification, the proper rate of duty was charged by you in this case, and your decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston.

EMPTY CHRONOMETER BOXES.

TREASURY DEPARTMENT, August 3, 1858.

SIR :—The Department has had under consideration the appeal of Messrs. C. B. Richard, Boas & Co. from your decision levying duties on an importation, by the steamer "Saxonia," of certain articles described as "chronometer cases or boxes." The articles in question were reported by the appraisers as rosewood and mahogany cases for chronometers; were empty, when imported, though intended, as the importers allege, to inclose chronometer movements expected to arrive by another vessel. Regarding the articles as in no just sense parts of chronometers, nor exclusively appropriated to the purpose alleged by the importers, you appear to have charged them with a duty of 30 per cent, as manufactures of rosewood and mahogany, under the classification in schedule B of the tariff of 1857, of "manufactures of cedar-wood, granadilla, ebony, mahogany, rosewood, and satin-wood." The appellants contend that the cases or boxes in question are liable only to a duty of 8 per cent, under the classification in schedule G of "chronometers, box and ships', and parts thereof," and that the box or case is essential to the proper preservation and working of the instrument, and is therefore a "part thereof" within the meaning of the law. In the opinion of the Department the duty was properly levied in this case. However boxes or cases actually containing chronometers on importation might be treated in reference to their dutiable character, when imported empty, and by a separate vessel, as in this case, they constitute, in the opinion of this Department, no part of the chronometer within the meaning of the law. Your decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

BOOKS IMPORTED BY AMERICAN TRACT SOCIETY.

In the case of the application of the treasurer of the American Tract Society for return of duty on two cases of French books imported from Canada, the Department decided "that the American Tract Society, although an incorporated society, does not come within the provision allowing the free entry of books for the use of any society incorporated or established for literary or philosophical purposes, or for the encouragement of the fine arts."

GLASS, CUT.

TREASURY DEPARTMENT, August 5, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 22d ultimo, on the appeal taken by Mr. Alvan Clark from your decision subjecting to duty, at the rate of 30 per cent, under the classification in schedule B of the tariff of 1857, of "glass, cut," certain articles described by the appellant as "unwrought glass" imported by him in the steamer "Arabia," but which appear from your report to consist of four "optical discs," being circular plates of cast or pressed glass, the edges of which are ground or cut and polished, and designed for object glasses in telescopes. It does not appear distinctly, from the importer's statement, to what rate of duty he considers the article subject. In analogous cases, under the tariff of 1846, this Department decided that the operations of cutting or grinding, to which the articles in question appear to have been subjected, brought the article so finished or ornamented into the classification of "glass, cut," as, for example, glass tumblers, whether blown or pressed, smoothed by cutting or grinding, or with engraved sides, were by that process made liable to duty as "glass, cut." To that view, in accordance with which the rate of duty appears to have been determined by you in this case, the Department still adheres. Your decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

NAUTICAL INTELLIGENCE.

NEW LIGHTHOUSE AT BARNEGAT, NEW JERSEY,

AND CHANGE OF LIGHT FROM FIXED TO REVOLVING—INTERVAL 10 SECONDS.

The new lighthouse tower on the south side of the entrance of Barnegat Inlet, New Jersey, will be completed at an early day, and the light will be exhibited therefrom for the first time at sunset on Saturday, the 1st day of January, 1859, and will be kept burning during that night and every night thereafter from sunset to sunrise. The tower is built of brick, is 148 feet high, and is surmounted by an iron lantern 15 feet high. The lantern is painted black; the upper half of the tower is of the natural color of the brick, and the lower half is white. The illuminating apparatus is a revolving catadioptric lens of the 1st order of the system of Fresnel, showing a bright flash every ten seconds of the natural color. The focal plane is 165 feet above the level of the sea, and the light should be seen in ordinary states of the atmosphere 22 nautical miles. The approximate position of the lighthouse, deduced from the Coast Survey determination, is—latitude, 39° 45′ 49″ N., longitude, 74° 06′ 05″ W. Mariners are requested to take particular notice that the temporary 4th order lens light at Barnegat will be fixed until January 1, 1859, when it will be changed to a 1st order revolving light with an interval of 10 seconds between the flashes. By order of the Lighthouse Board,

W. F. RAYNOLDS, Captain Corps Top. Engineers.

PHILADELPHIA, PENNSYLVANIA, September 1, 1858.

RANGE LIGHTS ON THE NORTH FRONT OF AMELIA ISLAND, FLORIDA.

Two beacon lights have been erected on the north front of Amelia Island, to guide vessels into the entrance of Fernandina Harbor, Florida. The seaward beacon light is on a wooden frame-work; structure painted red. The focal plane is 60 feet above the level of the sea. The illuminating apparatus is a Fresnel lens of the 6th order, showing a fixed light of the natural color. The inner beacon in on a dwelling-house, painted white, with a red roof. The focal plane is 35 feet above the level of the sea. The illuminating apparatus is a lens of the

6th order, showing a fixed light of the natural color. The beacons should be visible in ordinary weather a distance of 6 nautical miles. To enter Fernandina Harbor by these beacons, bring the main (Amelia Island) light to bear S. W. or W. S. W., in seven fathoms water, and run for it until the beacons are in range. Then run in on the range which bears W. ¼ N., until up with the inner buoy. The beacons will be lighted for the first time at sundown on Monday, the 1st of November next, and will be kept burning during that and every night thereafter from sunset till sunrise. By order of the Lighthouse Board,

W. H. C. WHITING, Lieutenant Corps of Engineers.

FERNANDINA, FLORIDA, September 1, 1858.

BEACONS ON POINTS HAYLEY AND BUNBURY, AUSTRALIA.

Official information has been received at this office, that the Harbormaster at Melbourne has given notice, that the following beacons have been erected on the coast to mark the position of Henty Reef, off Apollo Bay, between Cape Otway and Port Philip, South Australia:—Two pillar beacons, each surmounted by a ball, on Point Haley, about 9 miles to the northeastward of Cape Otway. The outer or seaward one is painted black, the inner white, and they stand W. ¼ S. and E. ¼ N., 200 yards from each other. Two beacons of the same forms on Cape or Point Bunbury, the southeast point of Apollo Bay, about 1¼ miles northeast of Cape Otway. The seaward beacon is red, the inshore one white, and they are 200 yards apart in a N. W. ¼ N. and S. E. ¼ S. direction. The reef, on which the sea only breaks occasionally in bad weather, has not more than 18 feet over it at low water, with 10 fathoms all round within a cable's length. It lies N. E. ¼ E. easterly 11 miles from Cape Otway Lighthouse, and S. E. ¼ S. 2 miles from Point Bunbury, with the beacons on Point Hayley and Point Bunbury respectively in line.

DIRECTIONS.—Vessels are cautioned to give this danger a good berth. Those bound to the northeast must keep the black beacon on Point Hayley well open to the northward of the white one, until the white beacon on Cape Bunbury opens well to the northeastward of the red beacon. Vessels proceeding to the southwest must keep the outer or red beacon on Cape Bunbury well open to the southward of the white one, until the white beacon on Point Hayley is seen well open to the southwestward of the black beacon.

ROCK OFF HOWICK ISLANDS.—Information has been received at the British Admiralty, that H. M. S. Megæra, on the passage from Sydney to Calcutta, passed about a cable's length to the northward of a pinnacle rock when running, with the wind blowing hard, for a night anchorage under the Howick Group of islands, inside the barrier reef, east coast of Australia. The rock was not examined, but appeared to have about 6 feet of water over it, and its approximate position is 4½ miles east of the southernmost (No. 3.) Howick Island, or in latitude about 14° 32½′ S., longitude 145° 6½′ east of Greenwich. The bearings are magnetic. Variation 9° east of Apollo Bay, and 7° 20′ east at the Howick Group, in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

LIGHT AT RIO DE LA HACHA, NEW GRANADA.

Information has been received at this office, that a harbor light has been established at the city of La Hacha, on the river of that name, in the province of Santa Martha, coast of New Granada, West Indies. The light is a fixed light, placed at an elevation of 69 English feet above the level of the sea at high water, and should be visible in clear weather from a distance of about 6 miles. It is shown from the tower of the church of La Hacha, in latitude 11° 33′ 47″ N.; longitude 72° 59′ 16″ west of Greenwich.

CAUTION.—The small fixed light at the pier of La Guayra, the port of Caracas, on the coast of Venezuela, is no longer exhibited. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

LIGHTS ON HIGH WHITBY—ENGLAND, EAST COAST.

Official information has been received at this office that the Corporation of the Trinity House of London has given notice, that on and after the 1st of October, 1858, lights will be exhibited from the two lighthouses recently erected near Ling Hill, on High Whitby, to the southward of the town of Whitby, east coast of England. The lights will be fixed white lights, each placed at an elevation of 240 feet above the level of the sea at high water. They will illuminate seaward, between N. N. W. ½ W. and S. by E. ½ E., showing over the North Cheek of Robin Hood Bay, and in clear weather they should be seen from a distance of about 23 miles. The illuminating apparatus will be dioptric, or by lenses of the first order. The light-towers stand N. by W. ½ W., and S. by E. ½ E., 258 yards from each other, and the southern is in latitude 54° 28′ 40″ N.; longitude 0° 34′ 10″ west of Greenwich.

CAUTION.—The mariner is strictly cautioned that the lights in line bearing S. by E. ½ E. lead on Whitby scar or rock, which lies about 2 miles from the north lighthouse. The southern light must therefore be kept open of the northern, in order to clear that danger. The bearings are magnetic. Variation 23° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

LIGHT ON KIRKABISTER NESS—SHETLAND ISLES, BRESSAY SOUND.

Official information has been received at this office that the Commissioners of Northern Lighthouses have given notice, that on and after the 30th of August, 1858, a light will be exhibited from the lighthouse recently erected on Kirkabister Ness, the southeastern point of Bressay, on the eastern side of the entrance of the Sound of Bressay, leading to Lerwick, Shetland. The light will be a revolving light showing red and white alternately, at intervals of one minute; it will be placed at an elevation of about 105 feet above the level of the sea at high water, and should be visible in clear weather from the deck of a vessel a distance of about 16 miles. The illuminating apparatus will be dioptric, or by lenses, of the second order. The light-tower is 40 feet in height, and will, with the keeper's houses, be painted white. It stands in latitude 60° 6′ 10″ N.; longitude 1° 7′ 30′ west of Greenwich. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

FIXED LIGHT ON KOKSKAR—BALTIC, GULF OF FINLAND.

Official information has been received at this office, that the Imperial Ministry of Marine of Russia has given notice, that on and after the 27th of May, 1858, a light would be exhibited from the lighthouse reconstructed on Kokskar, a little to the eastward of the meridian of Revel, on the south shore of the Gulf of Finland. The light is a fixed white light, placed at an elevation of 100 English feet above the level of the sea, and should be visible from the deck of a vessel in clear weather from a distance of 15 miles. The illuminating apparatus is a Fresnel lens of the second order. The light-tower is 97 feet in height; its base is broad, built of stone, and whitewashed; the upper part is of iron, painted red, and the lantern is painted green. It stands in about latitude 59° 41¼′ N., longitude 25° 1¼′ east of Greenwich. On the exhibition of the new light, the temporary light shown during the rebuilding of the lighthouse would be discontinued. Notice has also been given, that henceforth the Russian lights in the Baltic and Gulf of Finland will be lighted all night in summer, which has not hitherto been done. Also, that a light-vessel showing a red light would be placed on the south side of the Kalbaden-grund, about 14 miles to the southwest of Glosholm. And a light-vessel showing three white lights, to the north of Revel-stein or stone, near Revel. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

LIGHT ON THE SKAGEN OR SKAW—KATTEGAT, COAST OF JUTLAND.

Official information has been received at this office, that the Danish Royal Navy Department has given notice that, before the close of the present year, (1858,) a light will be exhibited from the new lighthouse on the Skagen or Skaw, the north point of Jutland, at the entrance of the Kattegat. The light will be a fixed white light, placed at an elevation of 144 English feet above the level of the sea, illuminating with its greatest brilliancy from W. by S. round northerly to S. W. by S., and showing a fainter light through the remaining points of the compass. The bright light should be visible 17 miles, and the faint light 12 miles in clear weather. The illuminating apparatus will be dioptric, or by lenses, of the first order. The light-tower is circular, built of red brick, and 126 feet in height. It stands E. by N. 1,720 yards from the old lighthouse, in latitude 57° 44′ 9″ N., longitude 10° 37′ 56″ east of Greenwich. On the exhibition of the new light the light at present shown will be discontinued.

LIGHT ON SAMSO ISLAND.—Also, that in the autumn of 1858, a light will be exhibited from the lighthouse recently erected on Vestborg Point, the southwest point of Samso Island, at the entrance to the Belts, Kattegat. The light will be a fixed white light, varied every three minutes by a very bright flash of 14 seconds' duration, preceded and followed by an eclipse lasting 11 seconds. It will be placed at an elevation of 118 English feet above the level of the sea, and should be visible in clear weather at the distance of 14 miles; the flash at 16 miles. Within a distance of 6 miles the eclipses will be almost imperceptible. The illuminating apparatus will be dioptric, of the third order. The light-tower is circular, of brick, and 45 feet high. It stands in latitude 55° 46′ 14″ N., longitude 10° 33′ 22″ east of Greenwich. The bearings are magnetic. Variation 17° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

FIXED LIGHT AT REGGIO—MEDITERRANEAN, COASTS OF ITALY AND GREECE.

Information has been received at this office, that a light has been established at Reggio, in Calabria, on the south coast of Italy. The light is a fixed white light, placed at an elevation of 75 English feet above the level of the sea, and should be seen in clear weather at a distance of about five miles. It is shown from the small steeple of the church of Santa Maria de Portosalvo; and its position is in latitude 38° 6′ 44″ N., and longitude 15° 38′ 43″ east of Greenwich.

ALTERATION OF LIGHT AT MOLFETTA.—Also, that the fixed light at the western extremity of the detached mole at Molfetta, in Bari, on the western shore of the Adriatic, has been altered to a fixed light varied by a flash every three minutes.

CAUTION.—The lights said to have been exhibited at Cape Rizzulo, and at Port Cotrone, in Calabria, also at Andrea Island, off Gallipoli, in Otranto, on the southeast coast of Italy, do not exist.

EGRIPO OR NEGROPONT CHANNEL.—The Greek Government has given notice, that the Negropont Channel between Eubœa or Egripo and the mainland, which had been opened in January last at a depth of fifteen feet, has been closed for the summer, in order that it may be further deepened to eighteen feet English. It is expected that the navigation will be again open in October next. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 4, 1858.

LIGHTS AT PORT JACKSON—AUSTRALIA, EAST COAST.

Official information has been received at this office that the Colonial Government of New South Wales has given notice, that on and after the 1st of June, 1858, a light would be exhibited all night from the lighthouse recently erected on the Inner South Head, at the entrance of Port Jackson, Sydney. The light is a fixed white light, placed at an elevation of about 90 feet above the level of the sea, and in clear weather should be visible from the deck of a vessel at a dis-

tance of about 15 miles. The illuminating apparatus is catoptric, or by reflectors, of the first order. The light-tower is 30 feet in height, and painted in vertical stripes of red and white. It stands on the edge of the cliff, in latitude 33° 50′ 45″ S., longitude 151° 18′ 42″ east of Greenwich.

LIGHT ON FORT DENISON.—Also, that on and after the same date a fixed red harbor light would be exhibited from the tower of Fort Denison, formerly known as Pinchgut Island, in Port Jackson. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, August 28, 1858.

JOURNAL OF INSURANCE.

PENNSYLVANIA INSURANCE LAW.

AN ACT FOR THE BETTER SECURING TO THE COMMONWEALTH THE PAYMENT OF TAXES DUE BY INCORPORATED COMPANIES. APPROVED APRIL 21, 1858.*

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same,* That hereafter, it shall be the duty of the president or treasurer of all institutions and companies, incorporated by or under any law of this Commonwealth, who are taxable under the laws of this State, to make report, in writing, to the Auditor-General, annually, in the month of November, stating specifically the amount of capital paid in, the date, amount, and rate per centum of each and every dividend declared by their respective corporations during the year ending with the first Monday of said month, and for each and every year in which the dividend or dividends of any such company or corporation do not amount to six per cent per annum, or more, on the capital stock paid in; the president or treasurer thereof, shall also furnish the Auditor-General, at the time of making said report, with an appraisement of the capital stock, in conformity with the thirty-third section of the act, entitled "An Act to reduce the State debt," etc., approved April 29, 1844.

SEC. 2. That if the said officers of any such company or corporation shall neglect or refuse to furnish the Auditor-General, on or before the thirty-first day of December, in each and every year, with a report aforesaid, or the report and appraisement, as the case may be, as required by the first section of this act, it shall be the duty of the accountant officers of the Commonwealth to add ten per cent to the tax of said corporation, for each and every year for which such report or reports and appraisement were not so furnished; which percentage shall be settled and collected with the said tax, in the usual manner of settling accounts and collecting such taxes:—*Provided,* That if said officers of any such company or corporation shall fail to comply with the provisions of the first section of this act, during the months of November and December, for three successive years, it shall be the duty of the Auditor-General to report the fact to the Governor, who shall, thereupon, by proclamation, published in one newspaper at Harrisburg, one at Philadelphia, and one at Pittsburg, daily, for two weeks, declare the charter of said company or corporation forfeited, and their chartered privileges at an end:—*Provided further,* That the charters of all companies shall be forfeited in manner aforesaid, who have neglected or refused to make report to the Auditor-General, as required by the seventy-first section of the act, entitled "An Act to provide for the ordinary expenses of government," etc., approved May 7, 1855, except such as make said report within one year after the passage of this act.

SEC. 3. That hereafter no institution or company, incorporated by or under any law of this Commonwealth, shall go into operation, without first having the

* This Act regulates the taxes of insurance, as well as all other corporations in the State.

name of the institution or company, the date of incorporation, the place of business, the amount of capital paid in, and the names of the president and cashier, or treasurer, of the same, registered in the office of the Auditor-General; and any such institution or company who shall neglect or refuse to comply with the provisions of this section, shall be subject to a penalty of five hundred dollars, which penalty shall be collected on an account settled by the accountant officers, as taxes on bank dividends are now settled and collected.

SEC. 4. That it shall be the duty of the Auditor-General to cause this act to be published weekly, for three consecutive weeks, in one newspaper published in Philadelphia, one in Harrisburg, and one in Pittsburg, for which a reasonable compensation shall be allowed, to be determined by the accountant officers, and settled in the usual way, which publication shall be taken and held as notice to all persons concerned.

G. NELSON SMITH, Speaker pro tem of the House of Representatives.
WILLIAM H. WALSH, Speaker of the Senate.

APPROVED—The twenty-first day of April, Anno Domini, one thousand eight hundred and fifty-eight.

WILLIAM F. PACKER.

NEW JERSEY INSURANCE LAW.

A SUPPLEMENT TO AN ACT, ENTITLED "AN ACT TO PROVIDE FOR THE INCORPORATION OF INSURANCE COMPANIES." APPROVED MARCH 10, 1852.

Whereas, By the laws of some of the United States, it is provided that insurance companies, chartered under the laws of this State, shall not transact business in said States, except on a deposit of securities in said laws named; Therefore,

SECTION 1. *Be it enacted by the Senate and General Assembly of the State of New Jersey*, That it shall be lawful for the treasurer of this State to receive from any insurance company, chartered under the laws of this State, a deposit of such securities as may be necessary to enable such company to transact business in any of the United States, under the laws of said States.

SEC. 2. *And be it enacted*, That said securities shall be held by the treasurer, so long as the said companies shall desire to transact business in the States requiring said deposit; but the parties making the deposit shall be at liberty to draw the dividends, or receive the interest on such securities; and whenever said companies shall desire to discontinue their business in said States, and it shall no longer be required by the laws of said States, the treasurer shall return the said securities to the companies depositing the same.

SEC. 3. *And be it enacted*, That the treasurer, for performing the duties required by this act, shall receive such compensation as is provided for performing like duties, by the act to which this is a supplement.

SEC. 4. *And be it enacted*, That this act shall take effect immediately.

FIRE INSURANCE.

The Philadelphia *Press* remarks:—

The importance of insurance against losses by fire and water may be seen at a glance by the following figures:—There were 322 fires in the United States in 1857, and the amount of property destroyed was $14,502,000. In 1856, the amount of property destroyed was upwards of $3,000,000 greater. The entire loss by marine disasters in the month of December last was $2,306,735. The above amount included thirteen steamers, forty-two ships, thirty-two barks, twenty-two brigs, and fifty-seven schooners. If this property was insured, as the most of it undoubtedly was, many thousands, perhaps millions, of persons bore the loss, each one suffering a little, whereas if no insurance had been effected, many persons would have suffered a business ruin, while others would have been seriously crippled in their affairs for life.

PROFITS OF INSURANCE COMPANIES.

The aggregates of the statements of the seventy-nine fire insurance companies doing business in New York in 1857, and mere agents of foreign companies, many of which transact a large business, for the year ending December 31, 1857, are as follows :—

Receipts of premiums		$5,578,859
Losses	$2,436,965	
Expenses, including taxes	1,568,401	
		4,005,366
Surplus receipts		$1,573,493

The losses are thus shown to be 44 per cent of the gross premiums, the expenses 28 per cent, and their disbursements together 72 per cent, leaving the surplus receipts 28 per cent.

POSTAL DEPARTMENT.

POSTAGES.

The following table shows the comparative activity of correspondence in seven countries in one year :—

	Population.	Postal revenue.	Postal expenses.	No. of letters.	Letters per 1,000 persons.
Switzerland ...	2,392,740	$447,572	$341,028	19,778,671	8,299
Holland	3,056,591	288,162	156,784	13,349,553	4,367
Belgium.....	4,426,202	755,648	327,118	11,521,955	2,603
Spain	13,396,218	1,281,761	1,095,393	30,775,686	2,209
France	35,783,170	9,321,900	6,023,925	150,000,000	4,192
United States..	23,191,876	5,940,724	7,982,757	102,139,148	4,404
Great Britain..	27,833,501	12,872,039	7,003,899	410,817,489	14,760

The correspondence in the United States is not so large as in Switzerland, and is about the same as in Holland and France, and not 30 per cent of the activity of letters in England. One reason may possibly be found in the agricultural occupation of the United States, as well as to the use of the telegraph, and the greater use of the public prints. The United States is the only country that does not derive a net revenue from the Post-office.

TELEGRAPHIC COMMUNICATION IN GREAT BRITAIN.

We extract from a blue book on miscellaneous statistics of the United Kingdom, the following information respecting electric telegraphs for the use of the public, in each of the years 1855, 1856, and 1857 :—

ELECTRIC AND INTERNATIONAL.

	1855.	1856.	1857.
Miles of telegraph.....	5,228	5,398	5,637
Miles of wire	27,711	28,627	29,498
Stations for public.....	404	423	460
Instruments	2,458	2,774	2,938
Public messages.....	717,104	768,248	844,668

On the 1st of January, 1858, this company had sixty-eight agreements with

railway companies and public offices for their business messages. The number of such messages is not recorded, but is estimated as amounting to three times the number of the messages sent by the general public. This company also furnished intelligence, on the 1st January, 1858, to 142 provincial journals, and to fifty-five different reading-rooms, but no record is kept of the number of those messages.

BRITISH AND IRISH MAGNETIC.

	1855.	1856.	1857.
Miles of telegraph	3,288	3,324	3,441
Miles of wire	14,926	15,008	15,688
Stations for public	201	209	230
Instruments	492	510	574
Public messages	264,727	316,420	356,186

The number of messages to and from the continent, transmitted jointly by this company and the Submarine Telegraph Company, and the number of messages for the railway companies, newspapers, and newsrooms, are not included with the messages for the public, but are estimated at about 250,000 messages per annum.

SOUTHEASTERN RAILWAY.

	1855.	1856.	1857.
Miles of telegraph	285	301	301
Miles of wire	1,083	1,220	1,296
Stations for public	73	81	80
Instruments	130	145	141
Public messages	35,698	36,855	40,309

The Southeastern has no working arrangements with either of the electric telegraph companies.

The total of recorded messages by these companies for three years may therefore be calculated as under:—

	1855.	1856.	1857.
Miles of telegraph	8,796	9,023	9,379
Miles of wire	43,720	44,855	46,482
Stations for public	678	713	770
Instruments	3,080	3,429	3,653
Public messages	1,017,529	1,121,523	1,241,163

NUMBER OF LETTERS.

The number of letters mailed annually in Great Britain and the United States has, according to official reports, been as follows:—

NUMBER OF LETTERS MAILED.

	United States.	Great Britain.
1847	47,587,757	322,146,248
1848	52,364,819	328,830,184
1849	60,159,862	337,399,199
1850	69,426,452	347,059,071
1851	83,252,735	360,647,187
1852	95,790,524	379,501,499
1853	102,139,148	410,817,489
1854	119,604,418	448,649,301
1855	126,723,425	456,216,716
1856	121,450,401	478,393,803
Total	888,527,549	3,864,670,152
Population, 1851	23,674,706	27,485,325

The number of letters in Great Britain has been more than four times as many as in the United States, and the average, per head, throughout the United States has been 4.9 letters per head, and in Great Britain 17 letters per head. These results, somewhat surprising when we consider that the people of the United States are more given to writing and reading than those of most countries, are to be accounted for only by reason of the better postal facilities of England. Not only is the rate uniform and cheap, but the delivery prompt, easy, and safe. This is particularly the case in the great cities. If a person conversant with the London Post-office arrangements should visit that of New York, he would have no difficulty in accounting for the smaller correspondence here. There is a great difference in the number of letters written in different sections. The people in Louisiana write over five-and-a-half letters to a person, in Missouri about three-and-a-half, in Indiana only three, in the Territories a little over three, and in Massachusetts ten. One or two such States as Massachusetts, New York, or Pennsylvania, have as many letters, and contribute as much revenue, as nearly a dozen States and Territories that have little commerce and a scattering population.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

RAILROAD CONVENTION.

The difficulties that were encountered by the great East and West trunk railroads led to a convention to agree upon terms for the regulation of future traffic. This is the first great movement of the kind which has resulted from our railroad system, and we append the terms of the agreement. The following is the official agreement entered into by the railway convention, which finally adjourned on Saturday last :—

At a meeting of the representatives of the Baltimore and Ohio, Pennsylvania, New York and Erie, and New York Central Railroads, held at the St. Nicholas Hotel, in the city of New York, on the 25th day of September, 1858, on motion, Charles Moran, President of the New York and Erie, was appointed chairman, and Samuel L. M. Barlow, secretary. After full discussion, the following agreement was adopted :—

1st. Neither party shall hereafter, directly or indirectly, employ runners or agents of any description for the purpose of soliciting passengers, or allow any compensation, by way of commission, drawback, or otherwise, for procuring passengers for their respective roads; but each party shall be at liberty to employ one person as a traveling agent, to inquire into the sale of tickets by connecting roads, and whether the company such agent represents is fairly treated by other roads as to its passenger business at competing points.

2d. Neither company shall in any way, directly or indirectly, procure any other company, its officers or agents, to exercise any influence to favor the traffic over its road in preference to those of the other parties hereto—it being intended that business shall be left to take its own course and its most convenient channel.

3d. The parties hereto will not employ freight agents at the West, except at lake and river ports, nor at any other points not on their respective roads proper, except at Boston, New York, Philadelphia, and Baltimore. No agents for soliciting freights shall be employed by either company, directly or indirectly, at any points not on their respective roads proper other than those above mentioned, and no contract shall be made for the transportation of freight, except from day to day, at the current rates for the time being.

4th. All barrel freight, except flour, shall be carried only by actual weight.

5th. A tariff on all freights from New York, and to and from all competing points, East and West, shall be fixed and agreed upon by the parties hereto, without power or discretion of agents of any grade to reduce the same, and no drawback, drayage, or commission shall hereafter be allowed, directly or indirectly, to any shipper of goods. In fixing the tariff rates the same rates shall be charged, East and West, on first, second, and third classes.

6th. The Pennsylvania Railroad Company and the Baltimore and Ohio Railroad Company shall establish the rates of transportation from Boston to competing points, which rates shall also be those charged by the New York Central and the New York and Erie Companies by rail and water. During the continuance of summer rates the New York companies shall charge additionally on all articles transported from Boston by all rail, on first-class, ten cents per hundred, and on second, third, and fourth classes, six cents per hundred, and during the period for winter rates they shall charge, over and above the rates of the Pennsylvania Railroad Company and the Baltimore and Ohio Railroad Company, ten cents per hundred on the first and second classes, eight cents per hundred on third class, and five cents per hundred on fourth class, or the said Pennsylvania and Baltimore and Ohio Railroad Companies shall be at liberty to charge all rail rates and insure the marine risks on the Atlantic Ocean and the Ohio River. Provided that all the rates from Boston to points of competition at the West shall not be fixed to exceed those of the rail by the Grand Trunk and the Ogdensburg lines; and provided further that the minimum of all rail rates from Boston shall not be less than from New York to the same points.

7th. Each of the four lines shall be at liberty to insure at their option respectively all goods shipped to and from New York to their respective termini, viz., Piermont, Albany, Philadelphia, and Baltimore; and that the differences between water and rail and all rail to Cincinnati shall be reduced to eight cents per hundred pounds on first and second classes, and to five cents per hundred pounds on third and fourth classes, and that without the joint assent of the Pennsylvania and Baltimore and Ohio roads the New York Central and New York and Erie Companies shall not hereafter make the rates on merchandise and live stock between New York and Columbus, or points west, south, or southwest of Columbus, less per ton per mile than the rates charged for the same between Cleveland and New York by all rail.

8th. The differences herein agreed to between all rail and water and rail rates to cover the water communication by lake and river, as well as by Atlantic Ocean; but whenever the local rates of any of the four roads and their connecting lines joined to water rates shall reduce the through rates to any point, the competing roads shall have the right to reduce their through rates to such point so as to leave only the above mentioned differences between the water and rail and the all rail rates.

9th. No bills as to trains, fares, or freights, except such as are posted in suitable frames, either at offices or hotels, or other public places, shall hereafter be used or circulated by either company. Such bills shall be posted only between the seaboard and the western termini of the roads of the respective parties. No advertisement or bill of either company shall in any way depreciate the line, route, or accommodations of the others; but all such bills and advertisements shall be confined to a statement of the times of departure and arrival of the connections with other routes of travel, and the rates and conditions of fares and freights.

10th. The classification of freights eastward and westward shall be uniform in all respects on the four lines, and shall be according to the schedules of classification hereto annexed.

11th. Each party shall protect the others from any variations from the said classifications, or of rates of freight by any express or transportation company, (by contract in any form either by car-load or otherwise,) which may use said roads respectively, on all freights destined to any competing point; and further, to insure such protection, no freight shall be carried on time by either of the

four companies, or by any express company, in any form over the roads of either of the four companies, at a less charge than ten per cent advance on regular all rail tariff rates; and any connecting line which shall influence traffic by a drawback to the shippers or to any express company, shall no longer have their coupon tickets sold by any of the four lines, nor shall through freight arrangements be continued with them thereafter, so long as they shall continue to allow said drawback.

12th. In case of any doubt of any agent of either of the companies as to the classification of any article of freight, he shall, if there be agents of the other companies or either of them at such place, consult such agent or agents in regard thereto, and, if they do not agree, the question shall be referred by them without delay to the proper officers of their respective roads.

13th. The rates and charges and freights to and from all common points shall be the same by each of the four lines, and any agreement which has heretofore been made with other persons and corporations for the reduction of the rates, or for the payment of commissions or otherwise, by which they shall be enabled to transport property at the rates which may be fixed upon from time to time, under this agreement, shall be at once terminated by the respective companies.

14th. The rates of transportation upon all live stock to and from all competing points shall be uniform per hundred pounds. No car-load to be charged for as less than 18,000 pounds, and all excess of weight to be charged extra in same proportion.

15th. All changes or modifications of the rates of freights or its classification must be made by the consent of the parties hereto, signified by their respective presidents, in writing.

16th. No free passes shall hereafter be issued by either of the parties hereto, except to the employees of each company employed at or between the termini of the roads of the respective companies, and to drovers in charge of live stock on stock trains eastward; but they shall be limited to one person for either one or two car-loads of live stock; to two persons for not less than four car-loads; to three persons for not less than six car-loads, and to four persons for not less than ten car-loads or more, who shall, in all cases, be required to pay regular fares on their return.

17th. The rates of passenger fares and extra baggage on the four lines shall be uniform between all common points, predicated on the fares of the New York and Erie and New York Central Railroads, being nine dollars from the first day of November until the first day of April in each year, and until the New York and Erie Road shall have given ten days' notice of an intention to reduce to eight dollars, and after such notice to the first day of November, eight dollars. Fares to and from all Western points to be divided in accordance with the resolutions of the Indianapolis convention, adopted April 14th, 1858.

18th. Neither company shall carry United States passengers or other passengers at less than first-class fares, except emigrants going westward; and no emigrants shall be carried at first-class speed—it being understood that the Baltimore and Ohio Road may, when their emigrant traffic is not sufficient to fill one car, send such emigrant passengers in a second-class car attached to their regular passenger trains; but this exception shall expire on the first day of April next, provided notice of a desire to terminate it at that time shall be given by either of the three lines to the Baltimore and Ohio Road.

Eighty pounds of baggage per passenger shall be allowed, and no charge shall be made for excess, unless the whole weight is over one hundred pounds, in which case the whole excess over eighty pounds shall be charged for, at not less than double first-class freight rates.

19th. In the event of any question arising as to the true meaning of any part of this agreement, the same shall be construed liberally, so as to meet the real intention of the parties as hereinbefore expressed, and to place all on a fair and equal footing in their competition for the passenger and freight traffic over their respective lines; and should any point of difference not herein provided for arise, the same shall be settled with reference to the general principles hereby established, and on the basis of equal and exact justice to all parties.

20th. It is further agreed between the parties hereto, that Samuel L. M. Barlow, of the city of New York, shall be appointed as the mutual agent and umpire of all the roads assenting to this agreement, to whom all complaints of violation of its provisions shall in the first instance be made in writing, with the proofs of such alleged violation. He shall thereupon give immediate notice in writing, with a copy of the proof so furnished, to the president of the road complained of, and shall fix a time within five days, or as soon thereafter as the nature of the complaint will admit, for hearing the parties and considering the proofs on both sides; and he shall thereupon forthwith determine as to the justice of the complaint so made, and give notice to all the parties hereto of his dicision, and he shall be at liberty to fine the offending road not less than $500, and not more than $2,000—one-half of such penalty to accrue to the informer, and the other half to the road making the complaint. In case the violation complained of shall be determined by him to have been proven, then the company thus found to be in fault shall, within five days after notice of his decision, pay, through such umpire, whatever sum he shall determine, not exceeding $2,000, and if such violation shall be decided by him to have been willful, and to have been committed by any officer, agent, or agency of such company, then such officer, agent, or agency shall, within the same time, be dismissed from all connection with such road. The compensation of such umpire shall be fair and equitable for the service performed, and shall be paid by all the parties hereto in equal proportions.

21st. In the event of any question arising as to the true meaning of any part of this contract in regard to rates or classifications, the party complaining shall, in the first instance, refer the question to the umpire hereby provided for, and until after his decision no other measure of redress shall be resorted to by the complaining party. All the parties hereto agree that any such complaint shall be thoroughly and speedily investigated by the superior officers of the company complained of, and that every facility shall be given to the umpire for the purpose of fully investigating and determining such complaint, and that, whether by decision of the umpire, a fine shall be imposed, or an officer, agent, or agency be held subject to dismissal, such decision shall be immediately and fully complied with by the road complained of.

22d. Should any difficulty arise in carrying this agreement into effect, the parties hereto, in view of the importance of the objects sought to be obtained, agree in good faith to endeavor, by mutual arrangements and concessions, to secure the practical working of the principles hereby recognized, but for the purpose of eventual protection to their respective rights, either party may, on fifteen days' notice, in writing to the others, elect to terminate this agreement, and the same shall thereupon be terminated accordingly, and thenceforth cease to have any further effect or operation, but no party hereto can withdraw from one or more sections of this agreement without abrogating the whole agreement.

23d. This contract to take full effect on the signature thereof by the representatives of the four lines, and the rates of freight, and the passenger fares hereby established, shall go into operation on the first day of October next.

ERASTUS CORNING, President New York Central Railroad Company.
CHARLES MORAN, President New York and Erie Railroad Company.
JOHN W. GARRETT, on behalf of Baltimore and Ohio Railroad Company.
J. EDGAR THOMSON, President Pennsylvania Railroad Company.

The following resolution was unanimously passed by the convention, and ordered to be published in the New York papers :—

Resolved, That the thanks of this convention be tendered to Samuel L. M. Barlow, Esq., President of the Ohio and Mississippi Railroad Company, for his laborious, energetic, and valuable services in bringing about this meeting, and so successfully promoting the restoration of harmonious relations between the managements of the great Eastern and Western lines, on whose judicious action the value as remunerative investments of such vast properties depend.

CONVENTION OF RAILROAD PRESIDENTS—ADVANCE OF RATES.

The result of the Convention of Railroad Presidents is a general advance of passenger rates from all the Western points to New York of three dollars, and

to Philadelphia of a very slight amount, so as to make the rates to both points the same as they were previous to the reduction. These rates, as well as the following freight charges to New York, will go into effect after the ratification of the four lines interested :—

RATES PER TON FROM NEW YORK TO THE WEST.

	1st class.	2d class.	3d class.	4th class.
Cincinnati, Dayton, Xenia, Piqua	$1 20	$0 88	$0 70	$0 55
Louisville	1 35	1 02	0 83	0 63
Cairo	1 75	1 40	1 15	0 85
Evansville	1 70	1 35	1 10	0 80
St. Louis	1 70	1 35	1 20	0 80
Alton	1 65	1 30	1 05	0 75
Vincennes	1 55	1 20	1 00	0 70
Columbus, Newark, Zanesville	1 15	0 83	0 65	0 53
Springfield, Ohio, Urbana	1 18	0 88	0 70	0 54
Cleveland	0 90	0 68	0 55	0 40
Sandusky	1 00	0 76	0 63	0 46
Toledo	1 04	0 79	0 64	0 48
Mansfield, Crestline, Wooster	1 07	0 82	0 65	0 51
Madison, Indiana	1 35	1 02	0 83	0 63
Terre Haute	1 50	1 13	0 90	0 73
Indianapolis	1 25	0 93	0 75	0 58
Jeffersonville	1 35	....	....	....
New Albany	1 45	1 12	0 93	0 73
Bellefontaine	1 05	0 83	0 68	0 52
Fort Wayne, Indiana	1 27	0 99	0 80	0 60
Forest, not less than Bellefontaine	....	....	....	....
Peru, Indiana	1 34	1 05	0 84	0 65
Logansport	1 36	1 07	0 85	0 66
Lafayette	1 39	1 09	0 89	0 68
Attica, Williamsport	1 44	1 14	0 90	0 70
Danville	1 50	1 15	0 95	0 73
Tolono	1 59	1 23	1 00	0 76
Decatur	1 65	1 28	1 05	0 79
Springfield, Illinois	1 68	1 30	1 05	0 84
Jacksonville, Naples	1 74	1 36	1 14	0 86
Chicago	1 55	1 16	1 00	0 76

EFFECT OF RAILROADS.

From a late address to the people of Tennessee we extract the following as the effect of railroads upon property :—

I will take this occasion to notice an assertion (I will not call it an argument) which I am informed has sometimes been made in your State, in reference to the financial condition of Tennessee. It has been said that Tennessee was greatly embarrassed by the aid she had given to railroads—that she was heavily involved in debt, and that if she ever paid her debt, she would be compelled to resort to taxation for that purpose. These assertions are made by those who show themselves to be entirely ignorant of her true condition. At the session of the Le-

After two or three days' stay in Albany, spent in making some repairs and alterations in the machinery, caulking the boiler to prevent the escape of steam, and supplying deficiencies discovered on the passage up the river, the return passage was commenced and prosecuted with about the same speed and success. When within about thirty miles of New York, the tubes that run from the boiler into the furnace, one after another gave way until the fires were entirely extinguished, and the remainder of the passage was made by the use of the sails. On arriving at New York she was laid up until a new boiler could be constructed, which was done of heavy sheet copper in about two months' time, when she was again started. From that time she accomplished her trips pretty regularly, but how differently from the boats of the present day. Instead of making a passage in nine or ten hours, she consumed from twenty-four to thirty. The landing of passengers at the different landing places was effected with much trouble and great loss of time, and no little terror to those of weak nerves.

MEMPHIS AND CHARLESTON RAILROAD COMPANY.

We have received the eighth annual report of this company, embracing the convention of stockholders held at Huntsville on the 9th of August.

There is certainly much practical good sense and skill displayed in the management of a great public work like this, when results approximate so near to estimates as is shown in the following :—

The board in their last report, estimated the receipts of the road from 1st July, 1857, to 1st July, 1858, at $1,000,000 ; expenses at $450,000—net profits, $550,000. The actual result of the year's business, shows that the receipts and expenditures are as follows :—

Receipts		$964,410 65
Expenses—Eastern division	$197,714 68	
Western division	250,558 12	
		448,272 80
Net earnings		$516,272 85

"The estimates of the board," continues the president, "for the past year would have been fully realized, but for the extraordinary floods of December and April, which increased its expenses between thirty and forty thousand dollars over and above its ordinary expenses."

SALE OF THE PENNSYLVANIA CANALS.

The Philadelphia *Ledger* remarks :—

The sale of the State canals has been finally consummated, Mr. Moorhead, the President of the Sunbury and Erie Railroad Company, having just concluded with the Governor, State Treasurer, and Attorney-General, the closing act of the entire transaction, namely, the paying over to the Commonwealth, as provided in the third section of the law authorizing the sale, 75 per cent of the excess of the price, three-and-a-half millions, at which the canals were sold to the Sunbury and Erie Railroad Company. This excess amounted to *two hundred and eighty-one thousand two hundred and fifty dollars.* This payment completes this very important sale, and we are glad to see it has been done with a promptness auguring well for the good faith of the companies in the vigorous prosecution of the road to completion. If the president of the company shall succeed in his efforts to complete the road through to Erie during the administration of the present executive of the State, as he promises to do, we think he may fairly lay claim to the title of the Napoleon in railroad enterprise. It will be a great achievement.

JOURNAL OF MINING, MANUFACTURES, AND ART.

MANUFACTURES OF PHILADELPHIA.

EDWIN T. FREEDLY, of Philadelphia, has published a work, entitled "Philadelphia and its Manufactures: a Hand-book exhibiting the Development, Variety, and Statistics of the Manufacturing Industry of Philadelphia in 1857, together with Sketches of remarkable Manufactories, and a List of Articles now made in Philadelphia," which, from the vast amount of information embraced within its pages, should be widely circulated among all classes of our citizens. The details given of all descriptions of goods are most interesting, showing the superiority of Philadelphia manufactures, both in quantity and quality, as to many of the most important branches, over any other city of the Union. If our merchants were to distribute copies of this work among their customers from the various sections of the Union, they would doubtless be amply repaid in the increased demand for the articles they produce or offer for sale. This volume contains the following summary of the aggregate value of articles produced in the city for the year ending June 30th, 1857:—

Agricultural implements, seeds, &c., (estimated)	$500,000
Alcohol, burning fluid, and camphene	1,022,140
Ale, porter, and brown stout	1,020,000
Artificial flowers	85,000
Awnings, bags, &c	91,750
Assaying and refining precious metals, including actual expenses of United States Mint, $430,000	850,000
Barrels, casks, shooks, and vats	715,000
Beer, lager and small	1,280,000
Blacking, ink, and lampblack, (estimated)	500,000
Bolts, nuts, screws, &c	411,000
Book and periodical publishing, exclusive of paper, printing, binding.	818,000
Book-binding, blank books, and marble paper	1,230,000
Boots and shoes	4,141,000
Boxes, packing, (estimated)	500,000
Brass articles	830,000
Bread, bakers', (including crackers,) ship-bread, &c	5,600,000
Bricks, common and pressed	812,000
Britannia and plated ware	380,000
Brooms, corn and other	104,000
Brushes	225,000
Candles, adamantine, and oleine oils	570,000
Caps	400,000
Cards, playing	118,000
Carpeting, ingrain	2,592,000
Carpeting, rag	504,000
Carriages and coaches	900,000
Cars and car-wheels	550,000
Chemicals, dyestuffs, chrome colors, and extracts	3,335,000
Clothing	9,640,000
Coffins, ready-made	219,000
Combs	150,000
Confectionery, &c	1,020,000
Copper work	400,000
Cordials, bay water, &c	200,000
Cotton and woolen goods, exclusive of hosiery, carpetings, &c	14,813,968
Cordage, twines, &c	810,000

Cutlery, skates, &c.	$150,000
Daguerreotypes, cases, and materials, (estimated)	600,000
Edge-tools, hammers, &c	127,000
Earthenware, fire-brick, &c.	647,000
Engines, locomotive, stationary, and fire	3,428,000
Engraving and lithography	570,000
Envelops and fancy stationery	150,000
Flooring and planed lumber	370,000
Flour	3,200,000
Fertilizers	503,000
Fringes, tassels, and narrow textile fabrics	1,288,000
Furniture, (estimated)	2,500,000
Furs	350,000
Gloves, buckskin and kid	150,000
Glue, curled hair, &c.	775,000
Gold leaf and foil	325,000
Glassware	1,600,000
Hardware and iron manufactures, not otherwise enumerated	1,169,000
Hats, silk and soft	800,000
Hose, belting, &c	175,000
Hosiery	1,808,150
Hollow-ware, exclusive of stoves, &c.	1,250,000
Iron, bar, sheet, and forged	1,517,650
Jewelry and manufactured gold	1,275,000
Lamps, chandeliers, and gas fixtures	1,300,000
Lasts and boot-trees	36,000
Lead pipe, sheet lead, shot, &c.	235,000
Leather, exclusive of morocco	1,610,000
Machinery	1,912,000
Machine tools	350,000
Mahogany and sawed lumber	580,000
Maps and charts	400,000
Marble work	860,000
Mantillas and corsets	330,000
Matches, friction	125,000
Medicines, patent, and prepared remedies	1,300,000
Millinery goods, including bonnet frame wire, &c., but excluding straw goods and artificial flowers	360,000
Mouldings, &c.	300,000
Morocco and fancy leather	1,156,250
Musical instruments	485,000
Mineral waters	350,000
Newspapers, daily and weekly, (estimated)	1,370,000
Oil cloths	289,000
Oils, linseed, lard and tallow, rosin, and railroad greases	2,131,230
Paint, zinc, and products of paint mills	770,000
Paper	1,250,000
Paper hangings	800,000
Paper boxes	175,000
Patterns, stove and machinery	115,000
Perfumery and fancy soaps	850,000
Picture and looking-glass frames, (estimated)	750,000
Preserved fruits, &c., (estimated)	350,000
Printing, book and job	1,183,000
Printing inks	160,000
Provisions, cured meats, packed beef, &c.	4,000,000
Rifles and pistols	120,000
Saddles, harness, &c.	1,500,000
Safes	150,000
Sails	135,000
Sash, blinds, doors, &c	250,000
Saws	510,000
Scales and balances	145,000
Shirts, collars, bosoms, and gentlemen's furnishing goods	1,187,000

Shovels, spades, hoes, &c.	$397,000
Show cases	55,000
Sewing silk	312,000
Silverware	450,000
Soap and candles, exclusive of adamantine candles	1,487,600
Springs, railroad and coach	238,000
Spices, condiments, essence of coffee, &c.	350,000
Starch	155,000
Steel, spring and cast	283,500
Stoves and grates	1,250,000
Sandstone, granite, slate, &c	300,000
Straw goods, including hats	600,000
Surgical and dental instruments, trusses, and artificial limbs	350,000
Sugar, refined, and molasses	6,500,000
Teeth, porcelain	500,000
Tin, zinc, and sheet-iron ware	1,200,000
Tobacco manufactures, cigars, snuff, &c	3,256,000
Trunks and portmanteaus	313,000
Turnings in wood	550,000
Type and stereotype	650,000
Umbrellas and parasols, including umbrella furniture, ivory and bone turning, whalebone cutting	1,750,000
Upholstery, (estimated)	500,000
Varnishes	239,000
Vessels, masts and spars, blocks and pumps, &c.	1,760,000
Vinegar and cider	300,000
Wagons, carts, and drays	815,000
Watch cases	942,000
Whips	175,000
Whisky, distilled	630,000
Whisky, rectified	2,524,500
White lead	960,000
Willow-ware, baskets, &c., (estimated)	120,000
Wire-work, (estimated)	260,000
Wooden and cedar ware	150,000
Works in wood, not otherwise enumerated	100,000
Miscellaneous articles, not otherwise enumerated, (estimated)	3,000,000
Total annual product of manufacturing industry in Philadelphia	$145,348,738
Add for leading branches in the vicinity of Philadelphia	28,500,000
Total for Philadelphia and vicinity	$171,848,738

According to the census of 1850, the average productive power of each person employed in manufactures in Philadelphia was about $1,100 per annum, a rate confirmed by our own investigations, and the capital invested was about one-half the aggregate of production. Assuming that these relative proportions were correct, though the aggregate amounts were manifestly erroneous, and assuming they are applicable now, the respective items would stand as follows:—Capital invested in manufactures in Philadelphia, $72,500,000; hands employed, 132,000; product, $145,348,738.

PROGRESS OF THE COAL TRADE.

The statistics of the coal trade for thirty-two years show a remarkable increase in the amount and value of the production of coal. At the present time the value of the coal annually mined in this country is nearly equal to the yearly production of gold in California; and at the present rate of increase the coal crops will soon be of greater value. It appears that in 1820, the first year in

which coal was mined in our State, the amount of production was but three hundred and sixty-five tons all told. The advance to the present time may be judged by the increase at the respective intervals marked below :—

Production in 1825.....tons	34,888	Production in 1845....tons	2,023,052
" 1830.....	174,764	" 1850.....	3,332,614
" 1835.....	560,758	" 1857.....	7,868,948
" 1840.....	805,414		

We now are but at the beginning of the development of our gigantic national resources, and the present amount of coal sent to market from our own immediate coal fields will, fifty years hence, appear as inconsiderable as the amount sent twenty-five years ago does to us now. Great Britain, with an area of coal deposits less than 12,000 square miles, and a population of about 30,000,000 inhabitants, raises at the present time nearly 68,000,000 of tons. In the next twenty years the population of the United States will not be less than 50,000,000. The area of coal fields, as at present traced, exceeds 133,000 square miles. Is there any improbability in the inference that, with full development of these coal fields, the annual production in the short period of the next twenty years will be proportionate to that of Great Britain, and that it thus may be made to reach, if demanded, the enormous amount of 750,000,000 of tons?

THE PRESERVATION OF WINE.

Wine is sometimes sulphurized as a preservative, and often so excessively as quite to taint it. The sulphur is burnt in the casks and bottles, and then the wine is poured in. If, by chance, the sulpnur is arsenical, then a slight dose of arsenic is administered to the public, far too innocent to understand whence comes the side-wind which blows them illness and disease. Cloves, cinnamon, lavender, thyme, and other aromatic substances, are used to weaken the influence of the sulphur, and the combination gives a peculiar taste and odor.

They are burnt in the casks together with the strips of linen dipped in sulphur, and the whole horrible medley of taste and smell passes for "bouquet" by the multitude, who believe what their wine merchants tell them, and praise according to price. In France, one-thousandth part of pulverized mustard seed is put in to prevent any after fermentation; but the greatest secret seems to be to preserve the wine from any contact with the outside air.

Some Malaga wine, which had been buried during the great fire of London —that is to say, in sixteen hundred and sixty-six—was dug up twenty years ago, and though nearly two hundred years old, was found perfectly good, well-flavored, and full-bodied. Exclusion of air alone would not have preserved it; sweet and alcoholic, it bore in itself the elements of longevity; had it not been poor in sugar and rich in acids, it would have been dug up a vinous skeleton. Wine kept in wood loses much of its water by evaporation; the same may be said of that kept in leather and skins. By this diminution of water, the alcohol remaining is concentrated and strengthened; but only originally strong wines can be so treated. With weak and acid wines, the very concentration increases the formation of tartaric acid, and that, without the proper counterbalance of alcohol, spoils all. This evaporation does not go on in glass bottles, and Saint Vincent therefore recommended that all bottles should be secured by bladders, not corks, so that evaporation might not be carried on in them. His advice has not been followed.

RAILWAY IRON MILLS AT BRADY'S BEND, PA.

A correspondent of the Greensburg *Herald*, writing from Brady's Bend, Armstrong County, Pa., where railway iron is extensively manufactured, stated the following :—

These mills produce over 12,000 tons of iron per annum, of a quality, as proved by actual trial, *unsurpassed* by any in the world, and much *superior* to the *imported* article. The labor required to transform the ore into the finished rail is almost incredible, and must be seen to be realized. When in full operation, they give constant employment to nearly 1,400 men, and from 75 to 100 teams. To furnish the metal requires four full-blast furnaces, capable of melting 54,000 tons per annum. The blast, with the other necessary machinery, is driven by two engines, each of 8 feet stroke, or an aggregate of 160 horse power. The amount of coal used for coke and fuel averages 2,000 tons (50,000 bushels) per week, and is brought from the mines by railroad, of which the aggregate length is at least 25 miles, nearly 18 of it being under ground. The rolling mill is the most interesting part of the works. The building itself covers an area of 225 feet by 150, containing 25 puddling and 9 heating furnaces, which, with the rollers, &c., requires nearly 450 men. In addition to the mill and furnaces, there are also an extensive foundry and machine shop for supplying the necessary castings and machinery, as all the machinery used is manufactured on these premises. One feature in the management of these works, as it is rather uncommon, may be noticed. The company owns over 6,000 acres, in fee simple, besides a mineral right to a large additional tract, and furnishing dwellings to all their employees, may be said to own a town which numbers a population of not far from 4,000 persons.

FACTS ABOUT TYPE-FOUNDING.

The casting of types by machinery is a comparatively recent process—invented some thirty years ago, and at present, all, or nearly all, the types produced in American foundries, are cast by machines, with the exception of some styles of large, ornamental type. Machines have been sent from the United States to Europe, and others have been invented there, but they have not been much used, except in Germany. They are well known to type-founders in England, but have not been employed by them to much extent. The use of machines for casting has contributed to reduce the price of type, but it is still an expensive article, not so much from the cost of the material, as from the labor required to cast and finish it, each type having to pass through five serarate operations.

The first and most important step in type-founding is to prepare the punches. They are pieces of soft steel, upon each of which the engraver cuts a single letter, with all possible accuracy, and they are then carefully tempered. The face of the punch resembles the finished type. Its impression, made in soft copper, is called a matrix; it is the mould which forms the face of the type. The mould of the shank is made of two pieces of steel, which fit accurately to each other and the matrix, and are enclosed in wood for convenience of handling. The type-metal is poured into a funnel-shaped orifice, at the top, and by a peculiar movement of the caster's arm, is thrown into the cavities of the matrix. When the metal is set, the founder detaches the matrix from the face of the type, and the mould is then opened, and the type removed. The overplus of metal which filled the funnel is next broken off, and the sides of the types are rubbed smooth, after which they are secured in frames, and have their ends cut smooth, and the lower one also ground. The process of bearding, which consists in beveling the angle of the body below the letters, is performed at the same time.

MINIUM OR CINNABAR.

The first of these is the ancient, and the last the modern, name for the same substance, which is a mineral of beauteous shining red color, and is an ore of mercury or quicksilver. Artificially prepared, cinnabar is much preferred to the native, as a pigment, because of its freedom from earthy impurities, and it has long been an object of chemical manufacture, and is generally known as vermillion. It is a compound of sulphur with mercury, each in equivalent proportions. To manufacture it, about five or six parts of mercury are added to one of melted sulphur, and when thoroughly combined, and constantly stirred, heat and light are evolved, and a violent cracking and spitting indicate the termination of this part of the process. The result is a dirty, blackish red mass; this crude product, after being pounded, is mixed with a small quantity of sulphur; this is placed in a glass flask until it is about half full, when it is closed with a charcoal stopper. The flask is then placed on a bed of hot sand, (kept hot by a slow drawing furnace,) and is left to remain thus red-hot for some hours, at the end of which time the cinnabar is found sublimed in the flask.

In Amsterdam, where it was first made, they still pursue a similar method to the one they have always done, but the one we have given is the essence of them all. Of all kinds of vermillion now made, the Chinese is the best, being sold for about six times the price of home made; it has a rich, (almost inclining to carmine) color, and no foreign substance can be detected in it, except a little glue.

At the present time, we apply the term minium to red lead, which is made by roasting lead in a slow reverbatory furnace, having a broad hearth, so that a great surface can be exposed to the action of the heated air. It is kept continually worked up and down until the whole mass changes to the well known color of red lead. Minium is often used to adulterate vermillion, and it is a fair supposition that the reason why our ancestors called them both by the same name was, that they did not know which was which.

EXTRACTION OF SILVER FROM COPPER ORES.

Kocubly, in speaking of the extraction of silver from copper ores, at the Malden Smelting Works, near Freiberg, says that the process observed is an economical and efficient one. The copper stone, containing from 50 to 70 per cent of copper, 8 to 15 per cent of lead, and 0.20 to 0.45 per cent of silver, is stamped, sifted, and roasted in a double furnace with two hearths, one above the other, first in the upper hearth, and then in the lower one. During the first stage of the roasting, sulphides of copper are converted into neutral and basic sulphates, which are again decomposed during the second stage of the roasting, giving off sulphuric and sulphurous acids, and being for the most part converted into oxyd of copper, while sulphate of silver and a small portion only of the sulphate of copper remain undecomposed. The roasted mass is again stamped and ground, and mixed with from 4 to 8 per cent of chloride of sodium, and again roasted. By this means the copper is converted into chloride, and chlorine compounds of the other metals are also produced. After this roasting is finished the mass is extracted in wooden tubs, under hydrostatic pressure. At first, lukewarm water is used for this purpose, and when the greater part of sulphate of soda and other salts have been removed, a solution of chloride of sodium is substituted. This dissolves the chloride of silver into precipitating tanks containing copper, which is dissolved while the silver is precipitated.

THE MANUFACTURE OF SUGAR.

According to the process of making and purifying sugars due to the ingenuity of Mr. M. Robinson, a saturated mixture of alum and lime is applied to the juice, in the proportion of two pounds of the mixture to a hundred gallons of the juice. These being intimately mixed, the acid is then neutralized by the application of milk of lime, in the proportion of three pounds to a hundred gallons. If there be an excess of acid, it will be discovered by the application of the test-paper usually employed by chemists to detect acids, and more milk of lime is to be added; and if there be an excess of alkali, it may be discovered by the application of the test-paper used for detecting alkalies, and more juice is added. When the mixture ceases to affect either the test for acid or alkali, the impurities will be precipitated, and may thus be separated; and the juice thus purified is to be subjected to the usual mode of clarification and concentration.

Pure raw sugar is now obtained direct from the sugar-cane, without having undergone any subsequent process of decolorization or refining, prepared by affecting the last stages of the concentration of the juice of the cane in a vacuum, at a temperature insufficient to produce any chemical changes in its constituent parts. By this improved and scientific process of manufacture, no molasses or uncrystalizable sugar is formed, and there is consequently an increase in the quantity of sugar obtained of twenty-five per cent. This establishes the fact, that molasses is not an educt of the cane, but merely a product of the former operation, from the intense and long-continued degree of heat employed in the processes. The sugar thus obtained, is in perfect, pure, transparent, granular crystals, developing the true crystaline form of the sugar, and being entirely free from the least portion of uncrystalizable sugar or coloring matter.

TANNING DEER SKINS.

The mode of preparing deer skins for market as practice at the West is as follows:—

Place the skins in a barrel of water, with a sufficient quantity of ashes to make a weak ley. Let them remain till the hair will come off easily by scraping with the graining knife, then grain them with the back of a shoe, butcher, or graining knife—a graining knife is the best. Where shoe or other knives are used, drive the edge of them into a round stick of sufficient length to handle easily—use a buckeye log or some soft wood to grain on. When done, hang the skins up and let them dry till they are hard and flinty, then soak in brain water, with a little soft soap added. Have the water about blood warm. After they become well softened, wring dry by folding the ends of the skin together around some solid post, take a stick and run through the other end to wring with, and wipe off any water with a cloth that may remain in the folds while wringing, After wringing, pull the wrinkles out by stretching with the hands—place your skins (hung loose) in an old barrel or dry goods box over the extremity of a covered trench of suitable dimensions, leaving sufficient space for the smoke to pass to the skins. A trench twelve or fifteen feet long is best, so as to allow the smoke to pass cool. Rotten wood or saw-dust is best to smoke with—smoke well for a day or two—wash through brain water as before. Repeat the operation of braining and smoking three times, and you will have well dressed leather. To prepare the brains for use, take sheep, beef, or hog brains, place them on plates, and roast them gradually before a fire or in a stove-oven till brown. Hack them fine while roasting. They will keep for a year or two. In using, place them in a small bag of thin muslin, so they will wash through in the water by rubbing.

IMPROVEMENT IN MANUFACTURES.

A successful manufacturer recently informed the editor of the Hartford *Times*, that in respect to the goods produced by American manufactures, of nearly all descriptions, but especially cassimeres, satinets, &c., there has been a greater improvement of the quality, during the last year, than in any other six years combined, since the commencement of our home manufactures in the United States. Contrasted by the side of American broadcloths and cassimeres made ten years ago, the goods of 1858 look like the best imported article; and it is plain that in a few years more the home demand will be supplied by American goods, equal to the best foreign-made fabrics.

STATISTICS OF AGRICULTURE, &c.

NINTH ANNUAL OHIO STATE FAIR.

A Cleveland paper remarks that the holiday week of the year is over, and the exhibition has been a grand success. The people congregated to it by thousands and tens of thousands, and, with the exception of the injuries, none of them fatal, sustained by a few persons on the second day by the bolting of a frightened horse from the ring, not an accident occurred to mar the universal enjoyment. The railroads were so carefully conducted that the multitudes were promptly transported without the slightest injury to life or limb; and all the arrangements of the fair grounds, as well as the management of the exhibition by the State Board of Agriculture, their officers and employees, were unusually good and satisfactory to committees, exhibitors, and the people. The citizens of Sandusky spared no effort conducive to the comfort of their guests, and very many will long remember with pleasure the hospitalities enjoyed and the friendships formed or brightened. The conduct of the intelligent masses on the fair grounds was unexceptional, and the entire sobriety and decorum which prevailed from day to day spoke volumes of praise for the present and of hope for the future. Ohio has honored Sandusky with a great State festival, and the men and the women of Sandusky have honored their city and the State with a spirit, an enterprise, and a success commensurate with the occasion.

The attendance during the fair was large, the receipts for single tickets amounting to $10,101. We clip the following facts and figures touching the financial condition of the Board from the Sandusky *Register*, which exhibited much tact and enterprise in giving full and accurate daily reports as the fair progressed. The receipts for each day were as follows:—

Tuesday, first day	$255
Wednesday, second day	4,071
Thursday, third day	4,306
Friday, fourth day	1,469
Receipts for entries	830
Contribution of Sandusky	3,000
Rent of dining hall	500
The total receipts are, therefore	$14,431

By these figures it is easy to approximate very nearly to the daily attendance.

The expenses, as far as estimated and ascertained, are :—

Premiums awarded	$4,500
Expenses of grounds, estimated	6,000
Printing, estimated	700
Police, estimated	600
Clerks, estimated	600
Incidentals, estimated	2,000
Total	$14,400

These estimates are liberal. In this connection we give the following general statement of the financial condition of the Board :—

Amount on hand in December, 1857	$6,000
Receipts from show licenses and escheated lands	4,000
Total	$10,000

Out of this there has been paid as follows :—

Contingent office expenses	$1,000
Secretary's salary	1,500
Total	$2,500
Leaving a surplus of	7,500

ECONOMICAL HINTS TO FARMERS.

1. Have a work-bench and a few tools in your woodshed, or in a little room at one end of your barn. There are many small jobs in the course of a year, which any man of common ingenuity can do as well as a professed carpenter. And there are many rainy days and "odd spells" when these jobs can be done. And how much running to the village, and how much waiting and patience this would save!

2. Have a place for everything and everything in its place. Those tools—why should they be lying around, the auger here, the jack-plane there, and the saw yonder, and the adz and screw-driver nowhere? Don't put away a shovel, hoe, spade, or any implement without cleaning it. This may seem needless care, but in the long run it is a saving of time and money. Rust corrodes and weakens the best made tools. There are men who leave their plows standing in the furrow, or lying by the side of the fence from one year to another. And the "brannew" scythe is often left dangling from the crotch of an apple tree, month after month. Hear what a sensible farmer says. "Drive in stout wooden pins to hang your yokes upon, nail strips of board from joist to joist to hang chains upon, make a rack overhead for pitchforks, rakes, turning sticks," &c. To all of which we respond—So let it be!

SUGAR CROP OF LOUISIANA.

The following is from the annual report of the New Orleans *Price Current*:—

We have compiled from our records the annexed statement of the sugar product of Louisiana for the past twenty-four years, showing the amount of each year's crop in hogsheads and pounds, with the gross average value per hogshead and total, the proportions taken by Atlantic ports and Western States, and the date of the first receipt of each crop. By this statement it will be seen that the total product of Louisiana from 1834 to 1857, inclusive, a period of twenty-four years, was 4,252,413 hhds., valued at $223,031,836, and that of this quantity

the Atlantic ports took 1,391,768 hhds., and the Western States 2,127,115 hhds. The crops from 1828 (which is as far back as our estimates extend) to 1833, summed up 281,000 hhds., which would make the total product in a period of twenty-nine years, 4,533,413 hhds., or 4,785,334,700 pounds. We would here remark that up to 1848 the product in hogsheads is estimated, and 1,000 pounds taken as the average weight per hogshead, but for the crop since that date we have taken the figures of Mr. P. A. Champomier, as we find them in his annual statements :—

Years.	Total crop. Hhds.	Total crop. Pounds.	Average price per hhd.	Total value.	Exported to Atlan. ports, hhds.	Exported to W. States, hhds.	First receipts of new crop.
1834....	100,000	100,000,000	$60	$6,000,000	45,500	44,500	October 15
1835....	30,000	30,000,000	90	2,700,000	1,500	23,500	Novemb. 5
1836....	70,000	70,000,000	60	4,200,000	26,300	35,000	Novemb. 1
1837....	65,000	65,000,000	62½	4,062,500	24,500	32,500	Novemb. 1
1838....	70,000	70,000,000	62½	4,375,000	26,500	32,500	October 17
1839....	115,000	115,000,000	50	5,750,000	42,600	58,000	October 18
1840....	87,000	87,000,000	55	4,785,000	38,500	46,500	October 14
1841....	90,000	90,000,000	40	3,600,000	28,000	50,000	October 13
1842....	140,000	140,000,000	42½	5,750 000	63,000	60 000	October 12
1843....	100,000	100,000,000	60	6,000,000	34,000	52,000	October 22
1844....	200,000	200,000,000	45	9,000,000	101,000	70,000	October 3
1845....	186,650	186,650,000	55	10,265,750	79,000	75,000	October 4
1846....	140,000	140,000,000	70	9,800,000	45,500	70,000	October 7
1847....	240,000	240,000,000	40	9,600,000	84,000	115,000	October 2
1848....	220,000	220,000,000	40	8,800,000	90,000	108,000	October 5
1849....	247,923	269,769,000	50	12,396,150	90,000	125,000	October 11
1850....	211,803	231,194,000	60	12,678,180	45,000	123,000	October 17
1851....	236,547	257,138,000	50	11,827,350	42,000	149,000	October 19
1852....	321,931	368,129,000	48	15,452,688	82,000	206,000	October 9
1853....	449,824	495,156,000	35	15,726,340	166,000	185,000	October 6
1854....	346,685	385,726,000	52	18,025,020	122,000	143,000	October 4
1855....	231,427	254,569,000	70	16,199,890	89,133	131,027	October 10
1856....	73,976	81,373,000	110	8,137,360	1,850	39,576	Novemb. 3
1857...	279,697	307,666,700	64	17,900,608	73,885	153,012	Septem. 29
Total .	4,252,413	4,504,870,700		$228,031,836	1,391,768	2,127,115	

TOBACCO IN CONNECTICUT VALLEY.

The Springfield *Republican* remarks, in relation to the growth of tobacco in the Connecticut Valley, as follows :—

The time for the harvest of the tobacco crop has already come. In the adjacent towns large numbers of men are busily engaged daily in cutting, carting, and hanging it. There are some pieces not fully grown, and these will be better cut later, but none can defer this work till frost. Frost is death on tobacco. The tobacco crop is a great and growing interest in the Connecticut River Valley. It is unquestionably the most remunerative crop grown, taking its average product and price for the last twenty years. We believe 1,500 pounds per acre is the average yield in this section, and 10 or 12 cents per pound the average price. The more perfect the leaf, the higher the price. The manner in which tobacco is prepared for market, after it reaches second hands, is an enigma to most growers. By some wonderful hocuspocus, it increases very rapidly in value, so that the same article that to-day was sold for 12 cents by the producer, to-morrow is repacked and sold for from 25 to 50 cents. Tobacco speculators make money even in hard times. We have a man in memory who in a little country village, is reported to have thus made $5,000 last year. We believe it. There are some men that annually double and quadruple their money in tobacco. We believe a book containing the secrets of the craft would pay. There is no use in decrying book farming any longer. The great, unanswerable argument in its favor is that it fattens the purse. The muscles and bone can do a great deal, but mind and brain can do more.

VINTAGE OF FRANCE.

The London *Economist*, of August 28, furnishes the following summary of the prospects of the vintage the present year in the wine-growing districts of France :—

Great anxiety is experienced at present with respect to the vintage, reports having been circulated by (it is believed) interested speculators, that the dry weather has prevented the growth of the grape. As the question is of general interest, we give our readers a summary of the information collected in the principal wine-growing districts :—

ALBY.—The vinyards are flourishing ; the odium has caused but little injury, and an abundant vintage is expected.

BLOIS.—The black grapes are beginning to ripen ; the white grapes are nearly ripe ; the appearance of the vinyards is perfectly satisfactory.

BOURG.—The vinyards are in the best condition—the grapes are beginning to ripen.

CETTE.—The continued dry weather has prevented the growth of the grape, and we require great rain to repair the injury. The odium had made its appearance, but was arrested by the sulphur applied to the vines. In the Gard the vinyards are magnificent, except in some elevated positions, where the grapes are suffering from the drought.

CORREZE.—The vintage will be as early this year as in 1822. We expect to drink new wine towards the 15th September.

LIMOGES.—The cold weather has retarded the growth of the grape ; nevertheless, we expect an abundant vintage.

MARENNES.—The vines are progressing admirably ; the grapes are visibly increasing in size. There is no disease.

MONTELIMART.—The appearance of a good vintage has produced a fall of 2f. the hectolitre. The price is now from 20f. a 22f. the hectolitre.

TARBES.—The vinyards are in the best possible condition. There will be an abundant vintage, and consequently empty casks are selling exorbitantly high.

From these accounts it does not appear that there is any chance of a rise in the price of wine during the ensuing season, particularly when we take into consideration the immense stock in the bonded stores of Paris. In the Bordelais, the fine appearance of the vinyards has paralyzed the efforts of the speculators for a rise in prices. An early and a more than ordinary abundant vintage is expected.

SILK IN AUSTRIA.

The very great interest now excited by the condition of the silk manufacture, and the produce of silk throughout the world, induces us to publish, *in extenso*, the following information recently supplied by Mr. HARRIS, Her Majesty's Consul-General at Venice, and published by the Board of Trade :—

This is the richest production of the Austrian Empire, in which the total mean annual quantity of silk cocoons produced reaches 27½ millions of kilogrammes, about 60,630,600 lbs. avoirdupois, which, at Austrian livres, 430, give a value of 124,000,000 of Austrian livres, equal to about £4,230,000. This production is divided as follows :—

	Kilogrammes.	Pounds.
Lombardy	15,000,000	33,075,000
Venice	10,200,000	22,491,000
Tyrol	1,598,000	3,457,440
Other provinces	672,000	1,481,760
Total	17,440,000	60,505,200

This statement is based on the reports of the several Chambers of Commerce, on the Statistical Annals of Milan, and on the observations of Jacini and Angela

Mazzold, respecting the results of the year 1852, which is selected as a fair average; 1853 having been, generally, an abundant year, and 1854 and 1855, on the contrary, very scanty.

In the official reports of the year 1847, the production of cocoons in Lombardy was estimated at 19,624,500 lbs., and in the Veneto at 12,899,250 lbs. Assuming this to be a fair approximation, it results that, in five years, the production of cocoons throughout the Lombardo-Venetian kingdom has increased 86 per cent.

The cocoons are converted into raw silk at the spinneries. The number of spinneries in Lombardy, in 1840, was 3,068, with 34,627 caldrons, besides smaller establishments, with not more than one or two caldrons each. The number of caldrons now reaches 42,000, giving occupation to 95,000 persons during 50 days of the year. Each caldron is calculated to produce 78¼ lbs. of raw silk, hence the quantity produced amounts to 3,307,500 lbs., and the total quantity of cocoons spun in the Lombard spinning mills must be reckoned, one year with another, at 41,895,000 lbs; to make up which between 7,000,000 and 9,000,000 lbs. are imported from the Venetian Provinces. The 33,007,500 lbs. of Lombard raw silk (including 551,250 lbs. waste) give, at 2,945 Austrian livres, equal to about £11 the lb., a value of £3,333,000 sterling. The value of the cocoons is, therefore, increased by spinning, £428,000, two-thirds of which are consumed by the expenses of labor and fuel; hence, the net profit of the spinneries is equal to between £102,600 and £140,000 sterling.

In the territory of Venice the spinneries are numerous, but on a small scale, with the exception of a few in the Friulane, which receive cocoons from Gorizia and the sea coast, and a certain number in the Veronese and Vicentino. These two last provinces contribute the larger portion of the cocoons sent to Lombardy and the Tyrol, owing to which exportation the number of their caldrons decreases annually.

The caldrons in the vicinity of Venice may be calculated at 20,000. They afford employment to 48,000 persons, and spin 16,537,500 lbs. of cocoons, producing 1,503,810 lbs. of silk, the greater part of which is coarse spun, and may be valued at £1,500,000; whence it results that in the Venetian Provinces the raw material acquires an increased value of £165,000, which, deducting expenses, gives the spinners a net profit of £45,000.

The Southern Tyrol, in 1855, possessing 184 large silk spinneries, besides smaller ones, with a total of 5,368 caldrons, employing 11,000 persons, and furnishing 348,390 lbs. of raw silk spun from 3,991,060 lbs. of cocoons. To make up the quantity of cocoons required beyond the production of the country, the Venetian Provinces supplied about 550,000 lbs. The gross profits of the spinneries amounted to £20,500, and the value of the silk produced £2,291,350. The other provinces of the empire produce about 230,000 lbs.

The whole production, therefore, of raw silk in Austria amounts to 5,512,500 lbs., of the value of more than £5,250,000, and the number of persons employed in the spinneries is not less than 160,000.

The raw silk is subjected to a fresh process in the throwing mills.

As the tables of Austrian commerce for 1852 show that 770,000 lbs. were exported by way of Venice, Trieste, Switzerland, and the Italian States, whilst the importation only reached 228,150 lbs., it may be said that of the whole produce of the empire, as before stated, about 5,000,000 lbs. remain for home consumption; two-thirds of which are consumed in Lombardy.

In the Province of Milan there are 93, and in the whole of Lombardy 525 throwing mills, with 1,239.000 spindles; 700,000 for throwing, and the remainder for folding the silk, employing 12,000 persons, namely, 4,500 men, 5,500 women, and 2,000 girls, besides 30,000 bobbin winders, who work also for the Venetian throwing mills.

The total production amounts to 1,555,000 lbs. of tram, and 1,276.000 lbs. of organzine, or 2,826,000 lbs. of brown silk, which at £11 3s. 9d. a lb., give a value of £3,355,870. To produce this quantity, 2,955,000 lbs. of raw silk are required, which, calculated at £11 1s. 1d. a lb., amount to £3,100,000, whence it

follows that an annual gross profit of about £320,000 is obtained by the throwing mills in Lombardy.

The throwing mills of the Venetian Provinces offer the same proportional results as the spinneries do; producing, however, a larger proportion of sewing silk, of which Verona alone (though declined from its former importance in this respect) produces 265,000 lbs. annually.

About 1,320,000 lbs. of raw silk are consumed in the Veneto, producing 1,255,000 lbs. of thrown silk, worth about £1.190,000, reckoning the waste, and employing 18,000 persons, including bobbin-winders working out of the establishments.

The gross profits of the throwsters is about £102,000; their labors increasing the value of the raw material to that amount.

In the Tyrol there are now 57 throwing mills, with 104,903 spindles, besides numerous smaller works, collectively employing 2,100 persons, and producing 335,000 lbs. of thrown silk, of the value of £280,000, for which 347,000 lbs. of raw silk, costing £240.000, are consumed. Including the worth of the waste silk a gross profit is obtained of £38,000.

In Austria the ulterior labor of manufacturing thrown silk into silk stuffs takes place almost exclusively at Vienna, Milan, and Como; a considerable quantity is also wrought up with other material, particularly wool, in the manufacture of damasks, tapestry, &c.; but the greater part of the thrown silk is exported either in a gray state or dyed.

This branch of manufactures is rapidly increasing in the capital of the empire, which alone consumes half of the whole quantity produced, and, including the dyeing establishments, employs a capital of £1,200,000. From 1839 to 1852 the consumption of thrown silk, for weavers' use, increased in Vienna from 542,300 lbs. to 1,188,000 lbs.

Milan is next to Vienna in the importance of its manufactures of silk stuffs. Its productions amount annually to more than £325,000. Como, engaged only in the manufacture of plain stuffs, has a greater number of looms than Milan, and produces to the amount of about £260,000.

There are silk manufactories in the Italian Tyrol, at Ala and Roveretto, and many of the Venetian Provinces, as well as numerous looms at Venice, Vicenza, and Verona, for velvets and ordinary silks. The value of the manufactures thence produced is estimated at about £165,000.

The amount of the silk manufactures, comprising articles made of waste silk and knubs, and stuffs of mixed material, cannot, therefore, be estimated at less than £2,400,000.

Summing up all these particulars, and bearing in mind the increased value which waste silk acquires by manufacture, as also of the silk itself after being dyed, it follows that the cultivation and manufacture of silk in Austria give a general total of nearly £6,250,000 sterling, and support fully 800,000 individuals during the whole or part of the year.

AGRICULTURE IN ILLINOIS.

The Legislature of Illinois has passed the following law, which we hope to see followed in all the States:—

AN ACT TO ENCOURAGE COUNTY AGRICULTURAL SOCIETIES.

SECTION 1. *Be it enacted by the people of Illinois, represented in the General Assembly*, That the sum of one hundred dollars is hereby appropriated to the use of each and every agricultural society throughout the State, for the purpose of giving them aid and encouragement in the general object of promoting agricultural improvements. And the treasurer is hereby authorized and directed, when called upon for that purpose, to pay over to the treasurer or fiscal agent of each country agricultural society in the State, the sum of one hundred dollars on receiving his receipt therefor, accompanied by the certificate of the county clerk of each county, respectively, where such agricultural society is located,

that such society is organized, and that such treasurer or fiscal agent is authorized to receive and receipt for the money on behalf of the same.

SEC. 2. The grant of one hundred dollars to each county agricultural society, as aforesaid, may be demanded and received, for the year 1857, by each and every county that is now duly organized, or that may be so organized on or before the first day of June next, and a further sum of one hundred dollars is granted to each agricultural society throughout the State, for the year 1858, that is now duly organized or that may be so organized on or before the first day of June, 1858, and the treasurer of this State is hereby authorized and directed to pay over the same, under the same conditions as provided in the first section of this act.

SEC. 3. This act to take effect and be in force from and after its passage.

Approved, February 12th, 1857.

STATISTICS OF POPULATION, &c.

POPULATION OF DIFFERENT COUNTRIES.

The population of several of the leading countries and their colonies have, according to recent censuses, been as follows :—

	Colonies.	Countries.
British Empire	5,224,477	27,435,325
" Indies	151,816,129	.....
France	739,496	35,400,486
Denmark	118,491	2,296,497
Holland	21,786,700	3,241,990
Portugal	1,722,140	3,412,000
Spain	3,717,433	12,386,841
Austria	.....	35,730,112
Prussia	.....	16,331,187
Russia	.....	66,008,315
Bavaria	.....	4,519,526
Belgium	.....	4,350,090
Greece	.....	637,700
Hamburg	.....	188,054
Papal States	.....	2,908,115
Sardinia	.....	4,650,368
Sweden and Norway	.....	4,645,007
Turkey in Europe	.....	15,500,000
Two Sicilies	.....	8,423,306
China	.....	400,000,000

The population of China, that very interesting country, is very uncertain. According to the best native authority the population should now be nearly 400,000,000, but the population is given by Gutzlaff at 367,000,000, and confirmed at about that by other late writers. Comparatively with England and Wales, the proportion of numbers to territory would be as follows :—

	Area square miles.	Population.	Acres per head.
England and Wales	37,812	18,065,634	2
China	1,298,000	367,000,000	2¼

Thus, even at the figures given, the population is less dense than in England. The census returns give, in some provinces of the empire, the population at an average of more than 700 persons to the square mile. But by the last census the county of Lancaster, England, had about 800 per square mile, not to speak of Middlesex, which has an average of 500, or of Surrey, which has about 700 per

square mile. It is also to be observed that these densely peopled parts of China on the sea-coast, have been penetrated by Europeans, are well known to be very fertile, and in every way well fitted to afford a large amount of subsistence to their inhabitants. These facts go to confirm to some extent the large population of China; the more so that the people of that country subsist on a much smaller allowance of food. The density of the population of Holland and Belgium is far greater than that of China.

POPULATION OF CUBA.

The *Home Cyclopedia*, published in 1854, makes the area of Cuba 32,800 square miles, and classifies its population as follows:—

Creole whites	520,000
Spaniards	35,000
Troops and marines	23.000
Foreigners	10,560
Floating population	17,000
Free mulattoes	118,000
Free blacks	87,370
Slave mulattoes	11,000
Slave blacks	425,000
Whole number not of African descent	605,560
Whole number of African descent	641,670

More than half the entire population are negroes and mulattoes. The Creoles, who, it will be seen, make up more than five-sixths of the entire population, aside from the blacks, are generally an ignorant race. They are mostly of Spanish extraction.

POPULATION OF FRANCE.

		Births.					
Departments.	Population.	Legitimate.	Illegitimate.	Total.	Still born.	Deaths.	Marriages.
Ain	367,362	9,784	444	10,228	322	9,287	2,861
Aisne	557,422	13,552	952	14,504	668	13,937	4,711
Allier	329,540	8,935	571	9,506	282	8,074	2,648
Alpes (Basses)	156,675	4,204	90	4,294	208	4,380	1,301
Alpes (Hautes)	133,100	3,970	130	4,100	82	3,881	890
Ardeche	379,614	12,086	284	12,370	97	9,657	2,952
Ardennes	326,823	7,772	381	8,153	194	6,485	2,529
Ariege	270,535	6,638	417	7,055	100	6,326	1,538
Aube	261,881	5,902	424	6,326	257	6,074	2,247
Aude	289,661	7,408	297	7,705	152	7,168	1,988
Aveyron	389,121	10,930	424	11,354	186	8,627	2,673
Bouch-du-Rhone	413,918	12,695	779	13,474	514	11,647	3,261
Calvados	498,385	8,873	1,077	9,950	299	9,973	3,521
Cantal	260,479	6,101	393	6,494	68	5,780	1,728
Charente	379,031	8,470	728	9,198	183	8,189	2,767
Charente-Infer	468,103	10,795	640	11,435	367	11,804	3,728
Cher	294,540	9,526	579	10,105	171	7,676	2,429
Correze	317,569	9,716	357	10,073	98	8,907	2,834
Corse	230,171	6,430	382	6,812	133	4,625	1,513
Cote-d'Or	396,524	9,206	651	9,857	441	9,696	3,181
Cotes-du-Nord	628,526	18,816	732	19,548	530	14,904	4,571
Creuse	285,620	6,596	484	7,080	65	5,288	1,938
Dordogne	503,557	13,058	730	13,788	308	12,542	3,568
Doube	292,347	7,059	573	7,632	339	6,812	1,892
Drome	320,075	8,749	378	9,127	348	7,195	2,583
Eure	423,247	7,608	736	8,344	187	9,231	3,584
Eure-et-Loir	292,337	6,947	393	7,340	187	6,358	2,457

Departments.	Population.	Births. Legitimate.	Births. Illegitimate.	Births. Total.	Still born.	Deaths.	Marriages.
Finistere	612,151	20,221	747	20,968	829	15,977	4,294
Gard.....	400,381	18,058	578	18,636	332	11,384	3,445
Garonne (Haute)	481,938	18,114	958	19,072	353	10,704	5,280
Gers.....	314,885	6,200	314	6,514	145	6,753	2,228
Gironde.....	602,444	12,947	2,123	15,070	355	12,646	5,146
Herault.....	386,020	10,781	376	11,107	272	10,284	3,195
Ille-et-Vilaine ..	562,958	16,403	627	17,030	606	13,285	4,318
Indre.....	268,977	7,298	423	7,721	241	6,137	2,300
Indre-et-Loire..	312,400	6,809	476	7,285	115	6,841	2,648
Isere.....	598,492	15,644	827	16,471	181	13,458	4,271
Jura.....	316,180	7,462	399	7,861	279	8,317	2,075
Landes.....	298,220	8,499	1,047	9,546	180	6,956	2,114
Loir-et Cher.....	256,833	6,856	515	7,341	197	6,034	2,161
Loire	458,786	14,198	612	14,810	522	11,132	3,219
Loire (Haute)...	307,161	8,733	351	9,084	77	7,339	1,900
Loire-Inferieure..	517,265	14,866	809	15,675	595	10,588	3,945
Loiret.....	331,633	9,587	699	10,286	361	8,555	2,806
Lot.....	294,566	7,129	280	7,409	108	6,710	1,989
Lot-et-Garonne..	346,260	6,610	340	6,950	93	7,728	2,706
Lozere.....	148,331	4,258	127	4,380	81	3,780	1,030
Maine-et-Loire..	504,968	11,802	690	12,492	414	10,150	4,004
Manche	604,024	12,474	799	13,273	438	12,011	4,110
Marne.....	367,309	9,198	789	9,987	315	9,474	2,969
Marne (Haute) .	262,079	5,832	296	6,128	234	5,556	1,955
Mayenne	368,439	8,894	522	9,416	309	7,750	2,767
Meurthe.....	445,991	10,547	897	11,444	716	10,403	3,257
Meuse.....	325,710	7,679	444	8,123	292	7,474	2,444
Morbihan.....	472,773	14,480	481	14,961	531	10,828	3,794
Moselle	448,087	12,134	749	12,883	334	9,364	2,839
Nievre.....	322,262	9,763	510	10,273	181	7,428	2,746
Nord.....	1,132,980	31,861	3,096	34,957	1,062	28,637	7,708
Oise.....	406,028	9,023	623	9,646	276	9,365	3,387
Orne.....	442,107	8,483	423	8,906	104	7,472	3,119
Pas-de-Calais...	695,756	17,343	1,578	18,921	630	15,010	5,029
Puy-de-Dome ..	601,594	15,120	505	15,625	340	13,672	4,174
Pyrenees Basses	457,832	9,588	974	10,562	29	9,553	2,282
Pyrenees Hautes	251,285	5,145	408	5,553	56	4,684	1,376
Pyrenees-Orient..	180,794	6,205	434	6,639	144	5,105	1,662
Rhin (Bas).....	580,373	17,847	1,765	19,612	815	14,371	3,696
Rhin (Haut) ...	487,208	15,240	1,301	16,541	735	12,504	3,117
Rhone.....	545,685	13,878	2,087	15,965	835	13,684	4,731
Saone (Haute)..	347,096	8,284	633	8,867	326	8,251	2,294
Saone-et-Loire...	565,019	15,098	980	16,078	616	13,496	4,633
Sarthe	474,876	9,681	835	10,516	355	8,911	3,683
Seine	1,864,467	31,409	12,083	43,492	2,813	35,586	13,002
Seine-et-Marne .	340,212	8,431	361	8,792	277	7,689	3,158
Seine-et-Oise....	474,955	10,713	630	11,343	412	10,839	4,007
Seine-Inferieure..	759,990	19,625	2,507	22,132	1,071	20,182	5,931
Sevres (Deux)..	320,685	8,215	431	8,646	147	6,609	2,469
Somme.....	570,529	13,903	1,178	15,081	212	13,457	4,400
Tarn.....	360,679	9,167	264	9,431	162	8,798	2,423
Tarn-et-Garonne.	242,498	5,111	204	5,315	167	6,023	1,769
Var	349,559	8,360	392	8,752	333	9,018	2,763
Vaucluse.....	259,154	7,893	321	8,214	321	7,091	2,195
Vendee	376,184	11,495	315	11,810	155	8,524	2,931
Vienne.....	308,391	7,990	414	8,404	176	7,101	2,440
Vienne (Haute).	314,739	9,294	573	9,867	270	8,009	2,006
Vosges.....	427,894	10,193	953	11,146	470	9,932	2,936
Yonne	374,856	9,048	534	9,582	193	8,356	3,334
Total	35,400,486	913,840	69,633	983,473	29,874	831,478	270,633

POPULATION OF ARKANSAS.

The *True Democrat* publishes a statement from which we learn that the State census returns of 1858 make the total population of Arkansas 318,313 :—

White males	136,943
White females	120,640
Free colored	682
Slaves	60,058
Total	318,313

VERGENNES, VERMONT.

The oldest and at the same time the smallest city in New England is that of Vergennes, Vt., which was incorporated in 1783. It is the oldest city in Vermont, and in 1850 contained 1,378 inhabitants.

MERCANTILE MISCELLANIES.

OBITUARY OF A BOSTON MERCHANT.

On the 20th of September, 1858, died Ebenezer Francis, Esq., at his residence in Pemberton-square, Boston, Massachusetts, at half-past six o'clock, A. M.

The deceased was born at Beverly, Massachusetts, Obtober 15th, 1775, and at his death was therefore nearly eighty-three years of age. He was the only son of Colonel Ebenezer Francis, who was killed in the battle of Hubbardton, near Ticonderoga, July, 1777.

Colonel Francis was born in Medford, Massachusetts, on the 22d of December, 1743, and in 1764 he removed to Beverly. His opportunities for acquiring an education in youth had been quite limited, but, by diligent self-culture, he had early fitted himself to engage extensively and successfully in business transactions, and to take a respectable stand by the side of the best educated and informed, in the prominent stations he afterwards occupied before the town and his country. In 1766, he was married to Miss Judith Wood, by whom he had four daughters and a son. He was actively engaged in business until the war broke out. Convinced that resort must be finally had to arms in deciding the controversy between this and the mother country, he paid much attention to military science, and encouraged it as far as he could in his fellow-patriots. His three brothers partook of the same martial spirit, and all of them became officers in the revolutionary service. By his stature, which was tall and imposing, as well as by his talents and character, he was well fitted to command. In less than three months from the commencement of hostilities he received a captain's commission from the Continental Congress, which was dated July 1st, 1775. Early in the following year he had risen to the rank of colonel, and commanded a regiment stationed on Dorchester Heights from August to December, 1776. By a commission dated November 19th, 1776, he was authorized by Congress to raise a regiment in the State of Massachusetts, which was raised under the name of the 11th Massachusetts regiment, and retained that designation through the war. At the head of his regiment Colonel Francis marched in January, 1777, to Ticonderoga. With that regard to religion which was a characteristic of his

life, he, previously to setting out on the march, had his regiment assembled to attend religious services in the meeting-house of the first parish. Associated with him on that perilous expedition into the wilderness were many brave and noble spirits, some of them highly educated. His reverend pastor, Rev. Mr. Hitchcock, of the second parish in Beverly, and afterwards minister of a church in Providence, R. I., accompanied the regiment as chaplain. Henry Herrick, a graduate of Harvard College, in 1767, was adjutant of the regiment. Moses Greenleaf, afterwards collector of Newburyport, and father of the late Professor Greenleaf, was a captain in it. On the 7th of July, 1777, the regiment was attacked at Hubbardton, near Whitehall, New York, by the overwhelming forces of Burgoyne. Numbers fell on both sides, among whom were Colonel Francis, who first received a ball through his right arm, but still continued at the head of his troops till he received a fatal wound through his body; the ball entering his right breast, he dropped on his face.

The following are extracts from "Travels in America by a British officer," who was in the battle of Hubbardton, and afterwards quartered as a prisoner in the vicinity of Boston:—

"The rear guard of the enemy was composed of chosen men, commanded by a Colonel F., who was reckoned one of their best officers.

"At the commencement of the action the enemy was everywhere thrown into the greatest confusion; but being rallied by that brave officer, Colonel Francis, whose death, though an enemy, will ever be regretted by those who can feel for the loss of a gallant and brave man, the fight was renewed with the greatest degree of fierceness and obstinacy.

"A few days since, walking out with some officers, we stopped at a house to purchase vegetables. Whilst the other officers were bargaining with the woman of the house, I observed an elderly woman sitting by the fire, who was continually eyeing us, and every now and then shedding a tear. Just as we were quitting the house she got up, and bursting into tears, said, 'Gentlemen, will you let a poor distracted woman speak a word to you before you go?' We, as you must naturally imagine, were all astonished; and, upon inquiring what she wanted, with the most poignant grief, and sobbing as if her heart was on the point of breaking, asked if any of us knew her son, who was killed at the battle of Hubbardton, a Colonel Francis. Several of us informed her that we had seen him after he was dead. She then inquired about his pocket-book, and if any of his papers were safe, as some related to his estates, and if any of the soldiers had got his watch; if she could but obtain that in remembrance of her dear, dear son, she should be happy. Captain Ferguson, of our regiment, who was of the party, told her, as to the colonel's papers and pocket-book, he was fearful they were either lost or destroyed; but pulling a watch from his fob, said, 'there, good woman, if that can make you happy, take it, and God bless you.' We were all much surprised, as unacquainted that he had made a purchase of it from a drum-boy. On seeing it, it is impossible to describe the joy and grief that was depicted in her countenance; I never in all my life beheld such a strength of passion; she kissed it, looked unutterable gratitude at Captain Ferguson, then kissed it again; her feelings were inexpressible; she knew not how to express or show them; she would repay his kindness by kindness, but could only sob her thanks; our feelings were lifted up to an inexpressible height; we promised to search after the papers, and I believe at that moment, could have hazarded life itself to procure them."

This watch is now in the possession of the family of the late Mr. Francis.

Young Ebenezer Francis came to Boston in January, 1787, a poor boy, and obtained a situation in the counting-room of the late Jonathan Harris, with whom he was subsequently several years connected in business. He married the eldest

daughter of Colonel Israel Thorndike, then of Beverly. Of seven children of this marriage, five are dead without issue; the two survivors are the wives of N. I. Bowditch and Robert M. Mason, Esquires.

Mr. Francis was for several years Chairman of the Trustees and President of the Massachusetts General Hospital, and to none more than to him was that institution indebted in its early days, his energy and good judgment having been of the utmost importance to its successful establishment. As President of the Suffolk Bank, he originated the system known as the "Suffolk Bank system," which has proved so efficient a means of securing to our community a sound paper currency. He was the President of the Cocheco Manufacturing Company, and for a long term of years a director in various insurance companies and many corporations.

As Treasurer of Harvard College, he introduced order and system, where, before, there had been a great want of method and exactness; and, on his retirement, a very elegant piece of plate was presented to him, on which is recorded the high sense which the corporation entertained of his financial ability, and the great value which they attached to his zealous and gratuitous services.

Mr. Francis was for many years engaged in active mercantile pursuits, and in all his transactions was distinguished for the strictest integrity and for great intelligence. He was largely concerned with the late Uriah Cotting, Esq., in many of his real estate transactions. Thus the whole title to Central-wharf is derived through Mr. Francis. He was eminently successfully in business, and is believed to have left the largest estate ever accumulated in New England. The will of the late Ebenezer Francis, Esq., is by law provable in Norfolk County, where the deceased had his domicil. His tax in Roxbury last year was $11,400. By the terms of the will about $117,500 are given to the descendants of two sisters, and there are sundry other legacies of $25,000 or $30,000 more. A trust fund of $100,000 is created for the payment of certain annuities—the surplus income of each year after the payment of the annuities, to be added to the principal, and after the death of the annuitants, the principal is to be disposed of like the residue of the estate.

The two daughters have direct bequests of $200,000 each and the houses they now occupy. A bequest and devise to his grandson, E. Francis Thayer, and the interest of that grandson in the residue of the estate, are rendered void by his death without issue before the testator. The remainder of the estate is devised to five trustees—the income is payable to each daughter during life. At the death of each daughter the income of her share is payable to her children during the trust. After the death of *both* daughters, the income for five years is devisable equally among all the grandchildren, and at the end of five years, the whole property is to be divided among the grandchildren, and the issue of any deceased grandchild.

The executors of the will are Nathaniel I. Bowditch, Robert M. Mason, (the sons-in-law,) and Samuel W. Swett, President of the National Insurance Company. The trustees are Nathaniel I. Bowdith, Robert M. Mason, Samuel W. Swett, Israel Whitney, of Boston, and Joel Parker, of Cambridge. The estate is estimated at about $3,500,000.

MAKING AND SAVING MONEY.

It is one thing to make money and another thing to save it. What young man has not learned the truth of this remark? Of the thousands who start in life, with the world all bright before them where to choose, with a liberal share of means upon which to set out in business, with troops of friends, with the fairest prospect of success, and perhaps nothing required of them but to follow up the pursuit at which their fathers amassed comfortable fortunes—how few there are who seem wise enough to save their money—to guard their interests—simply to take good care of what they have—to cherish the respect and esteem of all true friends, and on the other hand to discard all the idle insects which flutter about them in the sunshine of prosperity but quickly disappear in the first shadow of adversity. They have no thought of to-morrow. They live only for to-day. From childhood up they have learned to treat money as of secondary consequence. This is the reason why so many men who make plenty of money are always poor, and manage to pay their way only with extreme difficulty. They were not taught its value early in life.

The ingeniousness of youth often leaves the door of their hearts open for imposters and unprincipled "friends," and for petty extortions by that numerous class of individuals who are always "rather hard up," always in debt, always borrowing money, and always idle. A few simple rules, firmly adhered to, will serve as an infallible preventive to the sharp practices of these "gentlemen of elegant leisure."

But the habits of many young men now-a-days almost incessantly lead them into some ridiculous excess, and sap the foundation of many a noble fortune. The countless dollars thrown away upon fashionable tailors, and fashionable ladies—gaudy butterflies, the bright enamel of whose beauty will not bear the gentlest test—the carriage rides in the country—the fast horse (the most superfluous of all extravagances!)—the champagne suppers—the "royal times" spent in the company of dissipated and vulgar acquaintances at the billiard or (much worse) the club room—the summer tour to fashionable watering places—these and similar follies are a serious and generally a fatal hinderance to success in the race of life, and cause deep and poignant regrets, in after years, in view of the most precious time and opportunities wantonly thrown to the winds.

There is hardly a young man with a fair average start in business life who cannot succeed by reasonable prudence and economy. He should see the necessity of being just to himself first—of being just before he is generous. He should be just with his creditors, just to himself by never spending more than he earns, and then generosity may fairly follow.

The world always expects much of young men—they constitute the vital energy of every community—their influence is ever powerfully exerted—their voices are promp and earnest—their hands are always ready for execution and the first to "clear the way." They should then be useful—they should study to save their money for useful purposes, never forgetting themselves—and of their surplus means they should let the communities in which they dwell derive the benefit—for objects of charity and the general good—for public enterprises—for the support of the Christian religion, which is still happily the crowning glory of our country—for the poor and destitute and distressed who surround their daily path-

way—and for other purposes which will carry their names along with them as benefactors and invaluable men.

But to enable them to do this they must be frugal, temperate, economical—not penurious nor miserly (we would rather see them spendthrifts than misers)—and then the world will go well with them—they will see then that it is half the battle to know how to take care of their money after making it—there will be no need of putting off their creditors or the marriage day—and they can sit down in the mellow decline of life under their own vine and fig tree, and enjoy the incomparable blessings of moderation, domestic felicity and competence, if not absolute wealth.

To all young men in business we would respectfully but earnestly address our words of admonition. Let them keep in daily remembrance Poor Richard's pungent maxims. He understood thoroughly the importance of saving as well as of making money when he advised us to—

"Take care of the pence, and the pounds will take care of themselves."

THE COAL TRADE FIVE HUNDRED YEARS AGO.

The accounts of Adam de Hereyndon furnish some curious proofs of the difficulties which must have attended extensive building works in the fourteenth century. As in earlier times, all the metal work was executed on the spot, and forges and furnaces were built for the smiths and plumbers. These forges and furnaces required fuel, and it had already been discovered that coal was a more efficient material than wood. Owing, however, to the prejudice of the Londoners against that mineral product, on account of its effect upon the external appearance of the habitations, no supply of it could be procured in the metropolis, and the king's master of the works was compelled to buy a cargo at the pit mouth, in the county of Durham. The narrative of the voyage of a ship chartered to carry coals for the works at Windsor, in 1367, affords a striking contrast to the present state of the trade, when thousands of vessels and many lines of inland railways are daily engaged in bringing this important necessary of life into the capital. According to the custom of the time, the king sent his writ to sheriff of Northumberland, ordering him to buy 726 chaldrons of coals, and send them to London. The sheriff purchased them by the "greater hundred," at Winlaton, in the county of Durham, at 17d. the chaldron. From Winlaton they were conveyed in *kreles* to Newcastle, and there shipped. The freight to the south was at the rate of 3s. 6d. a chaldron. On their voyage to London, the colliers met with "a mighty tempest at sea," and through that, and by reason of the excess of measure over that of Newcastle, a loss of 86 chaldrons and one-quarter was incurred, the greater part having been thrown overboard during the tempest. Arrived at London, the coals were put aboard "shutes," or barges, and taken to Windsor at a cost of 1s. a chaldron. The total expense of bringing this insignificant quantity of coal to London, including its cost price, was £165 5s. 2d., to which must be added the barge hire to Windsor.—*Newcastle (Eng.) Journal.*

BRITISH EAST INDIA COMPANY.

Having alluded in our September number to the end of the East India Company, the following brief sketch of its history may be interesting:—

In 1497 the efforts of the Portuguese to discover the passage to India were successful, and in their success was the germ of the British East India Company. Efforts were made by the Portuguese, by means of a Pope's bull, to retain exclusive control of the passage to, and the commerce with, India, but with only partial success, for after trying in vain to discover another passage, the English

merchants in 1580 determined to have a share in the lucrative trade then growing up with India by way of the Cape of Good Hope, and Captain Stephens, in 1582, was the first Englishman who made the voyage to India by way of this passage. He was followed by Sir Francis Drake and Thomas Cavendish, in 1588, who, by their glowing reports, and by the rich captures made by the former's vessels, created an intense desire in England to participate in the wealth of which they had long dreamed. To obtain this end war vessels were first fitted out, and in 1793 Sir Walter Raleigh captured a ship of 1,600 tons, the largest ever seen in England, laden with the richest goods that India could furnish. After some efforts of private adventurers, there was formed a corporation, with a charter dated the 31st of December, 1660, entitled "The Governor and Company of Merchants of London trading to the East Indies." Powers were given to the company to elect their governor, directors, and officers; to inflict punishment not in violation of the laws of England; to export goods free of duty for four years, and to have certain privileges in exporting coin. The duration of the charter was limited to fifteen years, with the condition that it might be canceled upon a notice of two years. Such was the origin of the British East India Company, which, in time, extended its sway over the entire Mogul Empire; and but for the hostility of more liberal commercial opinions, would not now have its end chronicled in September 1st, 1858, over one hundred and ninety-seven and three-quarter years after its charter.

The history of the East India Company would tell of ambitious plans, fortunes made and lost, lives spent, health wasted, hopes, fears, wrongs, elsewhere only to be found in a nation's record. From the published life of Hastings, to the tale of the soldier who returns to his native English village with only his scars for his reward, we have the experience of a people, from a despot to a peasant, and all *servants* of this company.

The first expedition to India by the company was in 1601, and consisted of a fleet of five ships, varying from 1,600 to 130 tons, and with an outlay of $350,000. This trip was so prosperous that through it the company attained a power that was never lost while it had existence.

The hostility of the Dutch was for a time the chief obstacle that threatened the company; but the profits of a lucrative trade were sufficient to make the English company retain their possessions at all hazards. The profits of the trade may be estimated from the fact that the cost of East India goods in England was only thirty-three per cent when brought by Cape Horn, of the same goods brought over the land route through Aleppo; and as the company had a virtual monopoly, their profits were almost incalculable.

In 1645 the company established factories in Bengal, the principal of which was at Hoogly. In 1658 Madras was made a Presidency.

Charles II. confirmed the company's charter in 1661, and conferred on the company the power of *making peace or war* with any nation not of the Christian religion; of seizing and sending to England any British subject found trading in India without their leave. Also, the power of making laws, exercising jurisdiction, etc. Notwithstanding these extensive powers, private traders interfered materially with the trade of the company. In 1664 the French East India Company was formed, and ten years after laid the foundation of their settlement at Pondicherry. The Dutch having prior possession of the principal islands in the Indian Ocean were, however, the greatest rivals. In 1668 the company obtained a valuable possession in the Island of Bombay, through the gift of Charles II., who obtained it as part of the marriage portion of his wife, Catharine of Portugal, and from this time, either by treaty or force the company gradually and annually extended their territories and powers until they extended over all Hindoostan.

The year 1667 is memorable as being the one in which the first shipment of tea, of which we have record, amounting to 100 pounds, was made to England. From this small beginning the trade in time extended until it was the main prop of the company's existence.

With somewhat variable fortunes the company controlled the monopoly of the

India trade until 1698, when the English Government applied for a loan of £2,000,000, offering 8 per cent interest. This the company would not grant, and in consequence a charter was given to an association of merchants, taking the loan, two years before the India Company's charter expired. The result of having two rival companies was disputes, disastrous to both, and which for a time threatened total dissolution. In 1702, however, the two companies adjusted their differences, and formed themselves into one company, entitled "The United Company of Merchants of England trading to the East Indies." With all their powers and a monopoly of trade, it was not until the beginning of the present century, that the East India Company's commerce attained what, according to our present ideas, could be called any considerable magnitude. In 1811 the imports into England were only a little over $5,000,000.

In 1793 the company's charter was extended until 1814, and a provision inserted for the general opening of the trade to private individuals. For many years the opinion had been gaining ground, that the trade with India could be materially enlarged by such a course. The company had such influence, however, that in 1814, when the charter expired, the trade to individuals was open only on certain restrictions, and the company obtained a renewal of their charter until 1832, with these limitations. Such, however, is private enterprise, that with all the restrictions, the India trade trebled in a few years. In 1832, when the charter expired, there could be no further claims brought forward for a renewal of the commercial privileges; and the act 3 and 4 Will. IV., c. 85, for continuing the charter until 1854, *terminated the company's commercial character.* The wonderful increase that has since taken place in the trade with India, proves the sagacity of the measure, and the justice is even more evident. It is to be hoped that a corresponding improvement in the political condition of the country will take place, now that the company has ceased to exist as a *political power.*

The trade of the United States with British India amounted to $11,600,000, or more than double the whole commerce of India in 1811. With a more liberal Indian Government, we can expect a great increase in our trade, and with an improvement in the people, the practice of hoarding, which made India a "cesspool for precious metals," will be given up. The loss to this country alone from this practice, or the "balance of trade" with India, from 1820 to 1857, was $67,000,000.

SHROUDS OF THE ANCIENTS.

We have lately seen a statement of the vast amount of rags imported from the countries bordering on the Mediterranean, especially Turkey and Egypt, and manufactured by New England skill into the sheets daily issued by the *Journal* and other leading newspaper establishments of Boston. The New York *Journal of Commerce* publishes an interesting letter from a correspondent, giving an account of a visit to the paper-mills at Gardiner, Maine, from which the statement was taken. Millions of pounds of rags, collected from Italy and the East, are stored up in warehouses, or deposited in the open air upon the ground.

Cast-off garments of the living, and wrappings of the dead, are crowded together in one promiscuous mass. How ineffectual have been the efforts of man in all ages to achieve immortality of remembrance, or to secure inviolability for the little handful of dust remaining when life's turmoil was over! The names of those who planned the pyramids are unknown, with the names of the millions who toiled in their erection. And now the bodies of prince and peasant, master and slave, are made merchandise of by their remote descendants, or are collected to feed the watch-fires of travelers in the desert. The practice of embalming the bodies of the dead prevailed thousands of years ago, long before Christ and his followers walked the earth. What considerations led to this disposition of the dead, are now matters of conjecture. It may be that the shifting character of the soil of the countries bordering on the desert prevented burial, and that a scarcity of fuel made it impossible to raise the funeral pile, by which to reduce to ashes the beloved remains.

The mode of embalming varied with the various rank of the deceased. The

rich and noble were embalmed with costly gums and spices, for the possession of which, in these latter days, their resting-places have at times been invaded. But we proposed to speak of one mode in particular in which the deposits of the ancient dead have been despoiled. The bodies of the persons embalmed, after having been duly prepared by the removal of the viscera and brain, by being salted, steeped in resinous and other preservative solutions, were wound with linen cloths, each limb and finger separately, and then all together in additional envelops of linen, about fifteen or twenty in number. These envelops are now stripped off, collected, and a considerable part of the rags accumulated at Gardiner consists of these envelops. "How strange a story!" Forms that walked in the streets of Thebes three thousand years ago, after sleeping undisturbed for centuries, are now forced to yield their contributions to modern art; winding sheets of maidens who danced before Pharaoh, transformed into the scented sheets on which young ladies of the present time pen the gushing words of love or friendship, or into the less romantic forms wherein green-grocers and butchers wrap the materials of our mid-day meal.

So it ever is in the economy of nature. Nothing can be lost. A mysterious, inscrutable alchemy is transmuting grossest forms of matter into matchless shapes of beauty and use; these, in turn, crumble back to the magazine of shapeless matter.

> "Imperious Cæsar, dead, and turned to clay,
> Might stop a hole to keep the wind away;
> O that the earth, which kept the world in awe,
> Should patch a wall to expel the winter's flaw!"

There is a natural body, and there is a spiritual body. The amount of matter in this world of ours is demonstrable now, just what it was when the morning stars sang together and all the sons of God shouted for joy. But myriads of souls have tenanted, and myriads will tenant, the same substance, molded and remolded into earthly tabernacles, and soul after soul has laid aside, and will put off, these earthly tabernacles, rising to a new life requiring not for its manifestation material forms.—*Nantucket Weekly Mirror.*

LONDON OYSTER TRADE.

The oyster season opened in the London market, in accordance with the civic regulations of Billingsgate Market, at four o'clock on Wednesday morning, the 11th of August. Sixteen oyster vessels were present. Oysters are classified in England as dotives, pearls, cullies, barleys, and common. The best natives brought in the London market are $10 per bushel; inferior natives, $10; pearles, $3 50; cullies, from $2 50 to $3 per bushel. The railway vans brought immense quantities, in addition to the water borne from the oyster beds at Blackwater, Colchester, Burnham, and other fishing towns. When we think of an English oyster, a coppery taste in the mouth involuntarily recurs. There are no oysters in London that an American could or would swallow in New York. It would be rejected as bad; but when a man pays $10 a bushel he cannot afford to be fastidious. It is one of our American privileges and blessings, for which we cannot be too grateful, that our lines have fallen near good oyster beds, and that a reasonable price commands a better article than Europeans get at extravagant prices.

The above facts ought to prove of some value to our American fishermen. The chances for opening an English trade in American oysters are flattering, and we have often thought it strange that some of our far-sighted tradesmen did not establish a London oyster express, and thus at once build up a luxury now unknown to the English, as well as to afford a valuable trade.

How easy it would be to place on each of our steamships a refrigerator—Sandford's or Schooley's—capable of holding a ton of oysters, and sending it

over full at each trip of the vessel. Suppose ten of these were prepared; it would be no inconsiderable traffic to furnish the English market 1,500 tons of oysters per annum, which would yield a gross revenue of at least $2,000,000, and a net profit of fully $1,000,000 per annum.

ABOUT STOCKINGS, GLOVES, RUFFS, ETC.

We gave some facts, says the Boston *Herald*, a few days since, relative to the fashions that prevailed in old times, gathered from an article in the New England *Historical Register* for 1852. From the same source the following interesting matters, pertaining to the ancient customs and usages with respect to stockings, gloves, etc., are also collected:—

Stockings were anciently made of cloth or milled stuffs, sewed together. Henry II., of France, was the first who appeared with silk stockings. That was in 1559, and in 1561 Queen Elizabeth was presented by her milliner with a pair. The first pair of worsted stockings knit in England were made in 1564.

Red-colored stockings, whether of yarn, worsted, or silk, were much worn in New England for nearly half a century after the arrival of our fathers.

In 1629, when provision was made for emigrants to Massachusetts, the stockings furnished were accompanied with ten dozen pairs of Norwich garters. At an early period of our country, silk garters were worn by the more fashionable, and puffed into a large bow knot at the knee, but as the custom fell under the notice of the civil authorities, it was forthwith prohibited.

Gloves have been long in use, and it was once a proverb that, to be well made, three kingdoms must be concerned in the making:—Spain to dress the leather, France to cut it, and England to sew it. But France, for a considerable period; is said to have had the preference in all these three respects.

Sixty years ago, pall holders, and other persons attending funerals, wore white leather gloves. In 1741 men and women's "white glazed lamb" gloves were offered for sale in Boston.

Ruffs, however odd it may appear to us, were formerly worn by males as well as females. Queen Elizabeth appointed officers, it is related, to clip the ruff of every person seen wearing it of larger dimensions than the law permitted. A clergyman in 1608 took occasion to allude to a lady who wore a ruff that looked "like a sail; yea, like a rainbow." Ruffs were wired as well as starched. Anne, widow of Dr Turner, for assisting the Countess of Essex to poison Sir Thomas Overbury in 1613, received the following sentence:—"That, as she was the first to introduce the fashion of yellow starched ruffs, she should be hung in that dress, that the same might be held in shame and detestation." In the play of Albusnazzar, edited 1614, Arsnilina asks Tricalo, "what price bears wheat and saffron, that your band is so stiff and yellow?"

Speaking of starch, it first came into use in England in 1564. It was carried thither by a Mrs. Dinghen Vanden Plasse, of Flanders, who set up business as a professed starcher, and instructed others how to use the article for £5, and how to make it for £20. The *News Letter* of 1712 gives this notice:—"Very good starch, made in Boston by a starch maker lately from London, is for sale."

The picture of Governor Winthrop appears with an elegant ruff. The custom was inported by some of our primitive settlers, but in 1629 this part of the dress became so enlarged that the Legislature of Massachusetts felt obliged to command that it be kept within due bounds.

In the reign of James I. bands succeeded the full, stiff ruff. They were prepared with wire and starch, so as to stand out "horizontally and squarely." They were held by a cord and tassel at the neck.

People of the ton had the strings and tassels of their bands sometimes elegantly scalloped and embroidered, which custom finally attracted the attention of our civil authorities, who, in 1634, "forbade bands to be ornamented with costly work." In 1639 a law was likewise enacted prohibiting the wearing of bands so broad as had been the fashion.

THE BOOK TRADE.

1.—*A New Translation of the Bible.* By Rev. Leicester Ambrose Sawyer.

Messrs. John P. Jewett & Co., of Boston, are about issuing a new translation of the Bible, by that learned translator, Mr. Sawyer, having in view an independent revision and translation from the original languages, with a chronological arrangement of the Sacred Books. It is said Mr. Sawyer has devoted full twenty years of his life to the accomplishment of this object, and that the natural bent of his mind, together with his well-known attainments as a Greek scholar, peculiarly fit him for this great work. The new features comprised in this translation are the following:—1. To translate from the most improved texts of the originals. Great attention has been paid to the text of the Greek Testament during the last two hundred and fifty years, and many inaccuracies have been detected and removed. A perfect text is not yet attained, and, from the nature of the case, cannot be; but very great improvements have been made in it, and these ought to be made available to the English reader. 2. To translate with the utmost precision and accuracy word for word and particle for particle, but without servility in respect to idiomatic forms and modes of expression. 3. To translate the same words by the same when they mean the same thing as far as may be, and by different words, only when they have different meanings which require a change. 4. To translate different words as far as may be, by different words of corresponding meanings, and each word by the same word. 5. To translate general terms by those equally general, and not the more general by the less general, or the less general by the more general. 6. To avoid all needless indelicacy in the translation. 7. To translate chiefly into the recent and improved style of the languages, in preference to the antique. This involves the rejection of all obsolete words and modes of expression. 8. To interpolate as little as possible; and leave what is implied in the original, to be implied in the translation; and make the translation conform, as far as may be, to the style of the original. 9. To transfer the names of weights, measures, coins, etc., with expressions of their value in brackets, and to include all interpolations in brackets. 10. To arrange the Sacred Books according to their characters and dates, and not arbitrarily or according to their lengths. 11. To divide the Sacred Books into chapters and verses according to their natural divisions, and not to allow chapters to break up closely connected discourses, or verses to separate sentences. The New Testament, which will be published first, will be ready in October, to be followed by the Old during 1859.

2.—*Visitations and Search;* or, an Historical Sketch of the British Claim to exercise a Maritime Police over the Vessels of all Nations in Peace as well as in War, with an Inquiry into the expediency of terminating the Eighth Article of the Ashburton Treaty. By Wm. Beach Lawrence, editor of "Wheaton's Elements of International Law." 8vo., pp. 218. Boston: Little, Brown & Co.

The right of visitation and search over the vessels of all nations in peace as well as in war, as claimed by the British Government, has long been the theme of discussion among our people, as well as a subject of repeated negotiation among the various nations of Europe. Though the matter, so far as regards the United States, is now understood to be definitely settled, by the acceptance on the part of Great Britain of the exposition of international law presented by our Secretary of State, there is no more important subject than that which attaches itself to the maritime rights of a nation while traversing the high seas, hence the history of these negotiations, involving, as they do, the principles of maritime jurisprudence, cannot be without general interest to our citizens. The author appears accurate and fair in stating facts only—free from either national or party prejudice, and his statements may be relied on.

3.—*From New York to Delhi*, by way of Rio de Janeiro, Australia, and China. By ROBERT MINTURN, Jr. 12mo., pp. 488. New York: D. Appleton & Co.

This book, as the author informs us, has grown out of a six months' tour in India, just previous to the outbreak of the present mutiny, and comprises a series of letters originally written to his family while absent, but the interest which now attaches itself to India, and everything Indian, by cause of the recent revolution, has induced Mr. Minturn to publish them, as giving some interesting features in regard to the character of the natives of India, as well as some insight into the policy actuating the East India Company's government of that empire—a system which, though now no longer in existence as an independent power, with a few slight modifications, still constitutes the reigning power over India. It will be found comprehensible and concisely written, giving evidence that the author both knew his subject and what he was writing about—important considerations not always met with in books of this nature, while the last few chapters contain statistical and other information of considerable value.

4.—*A Journey due North;* being Notes of a Residence in Russia. By GEORGE AUGUSTUS SALA. 12mo., pp. 459. Boston: Ticknor & Fields.

The author says in vindication of himself for putting this volume before the public, that inasmuch as it is necessary for all those who travel into far and strange countries, not only to understand the commodities and fruitfulness thereof, but also to apply them to the setting forth of the same, that it may encourage others to travel, he has written this neat volume as a partial exposition of Russian life and customs. Mr. Sala appears to be a close observer, and possessed of a happy faculty of telling what he has seen—his style being humorous, and at times even racy—reminding us more of off-hand pencil-sketches than the production of one who had quietly seated himself to write out what he had seen among the people of the Czar. Evidently a socialist, he has given us a fair insight into the various ingredients of society, but seems to have lost sight of his object, and neglected much in dispensing with whatever relates to the physical nature of the country, its trade and commerce—it lacks facts and figures.

5.—*The Laws of Health.* By WILLIAM A. ALCOTT, M. D. Designed for Families and Schools. Boston: J. P. Jewett & Co.

This book purports to fill an acknowledged vacancy, as to a successful means of imparting just so much learning in anatomy and physiology as will enable the general reader, of common school attainments, to understand and apply the laws of health. It is certainly a valuable contribution on a worthy subject, yet it seems to contain both too much and too little—too much philosophy and too little elementary matter. The principles of organization must and should be clearly understood, before any one can rightly comprehend organic functions. For pointing out conditions and circumstances in conflict with the enjoyment of health, this book may be of decided utility; but for a reasonable understanding on physiological grounds of why good, as well as bad, attention to the laws of health, as here pointed out, are sooner or later afflicted with disease, it is deficient. It is chiefly valuable in teaching how to avoid known causes of disease, and the more widely spread such knowledge the better, and every effort in this direction is commendable.

6.—*Agnes.* A Novel. By the author of "Ida May." 12mo., pp. 509. Boston: Phillips, Sampson & Co.

Is a thrilling story of the revolution, full of reminiscences of those times, and of facts connected with the Moravian Missions, which will be found highly interesting. If the author's conceptions of Indian life are less heroic than those of most other writers, they are nevertheless much more life-like, and whoever has read "Ida May," will find that the author is none the less interesting in "Agnes."

7.—*Battles of the United States by Sea and Land;* embracing those of the Revolution and Indian Wars, the War of 1812, and the Mexican War. Illustrated with numerous highly-finished Steel Engravings. By HENRY B. DAWSON, member of the New York Historical Society, &c. Parts 1 and 2. Royal 8vo. New York: Johnson, Fry & Co.

This bears unmistakable evidence of being a very valuable work. No expense has been spared by the publishers in getting it up—the type and paper are good, while the illustrations are of the highest order. It is published by subscription in parts at twenty-five cents each, semi-monthly, with a guaranty by the publishers that it shall not exceed forty numbers in all. This book will fill an important blank in our country's history, for, as the author says, "the general histories of the country, and even the general histories of the respective wars, embracing, as they do, so much that is general or political in its character, must necessarily be brief in their descriptions of the various movements of the armies, and the various conflicts in which they have been engaged, and thus the student and the general reader alike are left to gather from doubtful sources the information they desire." In its preparation the author has spared no pains or research, by adding elaborate references in detail, for the information of those who would learn the exploits of the army and navy of our Republic from official authorities, which shows a very commendable zeal on his part, and which greatly enhances the value of the work for reference, as well as for popular use.

8.—*Rational Cosmology;* or, the eternal Principles and necessary Laws of the Universe. By LAURENS P. HICKOK, D. D., of Union College. 8vo., pp. 397. New York and London: D. Appleton & Co.

This is a scholarly work on physio-philosophy, reduced to a deeply entertaining style of thought, and the very converse of the pantheistic philosophy of the Germans. "The whole design includes the attainment of a clear conception of what is essential in a Being that must be the Maker of the universe; and then a clear conception, also, of the immutable principles that must determine the laws, and by which we may expound the nature, of the universe. . . . . In reference to the theology, there may be a complete satisfaction attained in the use of a true, rational psychology; but the new and severe task demanded is in reference to the philosophy. There is the necessity for the instauration of a *true science of the universe*—A RATIONAL COSMOLOGY." This extract from the introduction may be fittingly applied to the author and his work.

9.—*The Household Book of Poetry.* Collected and Edited by CHARLES A. DANA. 8vo., pp. 797. New York: D. Appleton & Co.

The design of this noble book is to combine in one volume whatever partakes of genius and is truly beautiful among English poesy; and although in the carrying out of this design we have been subject solely to the caprice and taste of the compiler, in judging of the poetical merit of each production, we have not suffered thereby; and again in the happy arrangement of the book in classifying the different productions according to the subjects of which they treat, rather than to the nativity or sex of the authors, Mr. Dana has exhibited an erudition in thus disposing of the incongruous mass with which he has had to deal that cannot but be appreciated by the public. Two well-digested indices accompany the work—one classifying each poem with the subject of which it treats, and the other comprising a list of the authors' names, their nativity, etc., and coupling it with a list of their productions which have been made use of in this collection. We feel that we cannot bestow too much praise on this effort of Mr. Dana's in thus compiling this book of poetry, which will be found worthy to become the familiar friend and companion of every household.

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HUNT'S

MERCHANTS' MAGAZINE

AND

COMMERCIAL REVIEW.

DECEMBER, 1858.

Art. I.—LOWELL AND THE COTTON MANUFACTURE.

Among the distinguished names of New England, that of the octogenarian, Nathan Appleton, has been closely connected with the manufacturing progress of that portion of the country. He was identified with the introduction of the power loom, and has lived to see a city of 40,000 souls grow out of his project, while the manufacture has extended in the Union from a consumption of 60,000 bales, 21,000,0000 pounds, to 700,000 bales, or 322,000,000 pounds, per annum. This gentlemen was solicited by Messrs. Crowninshield, Cary, and Francis, officers of Lowell corporation, to write out some reminiscences connected with the early history of Lowell. Mr. Appleton replied as follows:—

Boston, September 1st, 1858.

Dear Sirs:—I have given particular attention to your interesting communication, on the subject of committing to paper my reminiscences of particulars connected with the early history of Lowell and the cotton manufacture.

The idea of doing so has frequently been pressed upon me, and has naturally attracted my attention. My greatest obstacle has been the necessity which it involves of using so much the personal pronoun, which would appear more properly in a posthumous autobiography. Your very kind urgency has, however, overcome my scruples, connected with the circumstance that I am now approaching the age of pardonable garrulity, which allows the octogenarian a license to talk of himself. I am, it is true, the survivor of my early associates in this matter. I can claim for myself no other merit than a cordial co-operation with Messrs. Lowell, Jackson, Boott, and others, the more active parties in establishing the cotton manufacture on the principle of making every possible provision for the moral character and respectability of the operatives. I naturally feel a degree of satisfaction in the part which I have thus performed in the introduction of this manufacture, so important in every point of view to the interest of the whole country. With these views I submit the accompanying manuscript to your disposition, and am, very truly, your obedient servant,

NATHAN APPLETON.

Messrs. F. B. Crowninshield, Thomas G. Cary, and James B. Francis.

INTRODUCTION OF THE POWER LOOM.

My connection with the cotton manufacture takes date from the year 1811, when I met my friend Mr. Francis C. Lowell, at Edinburgh, where he had been passing some time with his family. We had frequent conversations on the subject of the cotton manufacture, and he informed me that he had determined, before his return to America, to visit Manchester, for the purpose of obtaining all possible information on the subject, with a view to the introduction of the improved manufacture in the United States. I urged him to do so, and promised him my co-operation. He returned in 1813. He and Mr. Patrick T. Jackson, came to me one day on the Boston exchange, and stated that they had determined to establish a cotton manufactory, that they had purchased a water power in Waltham, (Bemis's paper mill,) and that they had obtained an act of incorporation, and Mr. Jackson had agreed to give up all other business and take the management of the concern.

The capital authorized by the charter was four hundred thousand dollars, but it was only intended to raise one hundred thousand, until the experiment should be fairly tried. Of this sum Mr. Lowell and Mr. Jackson, with his brothers, subscribed the greater part. They proposed to me that I should take ten thousand of this subscription. I told them, that theoretically I thought the business ought to succeed, but all which I had seen of its practical operation was unfavorable; I, however, was willing to take five thousand dollars of the stock, in order to see the experiment fairly tried, as I knew it would be under the management of Mr. Jackson; and I should make no complaint under these circumstances, if it proved a total loss. My proposition was agreed to, and this was the commencement of my interest in the cotton manufacture.

On the organization of the company I was chosen one of the directors, and by constant communication with Messrs. Lowell and Jackson, was familiar with the progress of the concern.

The first measure was to secure the services of Paul Moody, of Amesbury, whose skill as a mechanic was well known, and whose success fully justified the choice.

The power loom was at this time being introduced in England, but its construction was kept very secret, and after many failures, public opinion was not favorable to its success. Mr. Lowell had obtained all the information which was practicable about it, and was determined to perfect it himself. He was for some months experimenting at a store in Broad-street, employing a man to turn a crank. It was not until the new building at Waltham was completed, and other machinery was running, that the first loom was ready for trial. Many little matters were to be overcome or adjusted, before it would work perfectly. Mr. Lowell said to me that he did not wish me to see it until it was complete, of which he would give me notice. At length the time arrived. He invited me to go out with him and see the loom operate. I well recollect the state of admiration and satisfaction with which we sat by the hour, watching the beautiful movement of this new and wonderful machine, destined, as it evidently was, to change the character of all textile industry. This was in the autumn of 1814.

Mr. Lowell's loom was different in several particulars from the English loom, which was afterwards made public. The principal movement was by a cam, revolving with an eccentric motion, which has since given place

to the crank motion, now universally used; some other minor improvements have since been introduced, mostly tending to give it increased speed.

The introduction of the power loom made several other changes necessary in the process of weaving. The first was in the dressing, for which Mr. Horrocks, of Stockport, had a patent, and of which Mr. Lowell obtained a drawing. On putting it in operation, an essential improvement was made, by which its efficiency was more than doubled. This Waltham dressing machine continues in use, with little change from that time. The stop motion, for winding on the beams for dressing, was original with this company.

The greatest improvement was in the double speeder. The original fly-frame, introduced in England, was without any fixed principle for regulating the changing movements necessary in the process of filling a spool. Mr. Lowell undertook to make the numerous mathematical calculations necessary to give accuracy to these complicated movements, which occupied him constantly for more than a week. Mr. Moody carried them into effect by constructing the machinery in conformity. Several trials at law were made under this patent, involving, with other questions, one, whether a mathematical calculation could be the subject of a patent. The last great improvements consisted in a more slack spinning on throstle spindles, and the spinning of filling directly on the cops, without the process of winding. A pleasant anecdote is connected with this last invention. Mr. Shepherd, of Taunton, had a patent for a winding machine, which was considered the best extant. Mr. Lowell was chaffering with him about purchasing the right of using them on a large scale, at some reduction from the price named. Mr. Shepherd refused, saying, "You must have them, you cannot do without them, as you know, Mr. Moody." Mr. Moody replied—"I am just thinking that I can spin the cops direct upon the bobbin." "You be hanged," said Mr. Shepherd; "Well, I accept your offer." "No," said Mr. Lowell, "it is too late."

From the first starting of the first power loom, there was no hesitation or doubt about the success of this manufacture. The full capital of four hundred thousand dollars was soon filled up and expended. An addition of two hundred thousand was afterwards made, by the purchase of the place below in Watertown.

After the peace in 1815, I formed a new copartnership with Mr. Benjamin C. Ward. I put in the capital for the purpose of importing British goods, with the understanding that I was not to perform any part of the labor of carrying on the business. I was content with a moderate fortune, but not willing to disconnect myself entirely from business. An accidental circumstance occasioned the continuance of this copartnership until 1830.

At the time when the Waltham Company first began to produce cloth there was but one place in Boston at which domestic goods were sold. This was at a shop in Cornhill kept by Mr. Isaac Bowers, or rather by Mrs. Bowers. As there was at this time only one loom in operation, the quantity accumulating was not very great. However, Mr. Lowell said to me one day that there was one difficulty which he had not apprehended, the goods would not sell. We went together to see Mrs. Bowers. She said everybody praised the goods, and made no objections to the price, but still they made no sales. I told Mr. Lowell, the next time they sent

a parcel of the goods to town, to send them to the store of B. C. Ward & Co., and I would see what could be done. The article first made at Waltham was precisely the article of which a large portion of the manufacture of the country has continued to consist; a heavy sheeting of No. 14 yarn, 37 inches wide, 44 picks to the inch, and weighing something less than three yards to the pound.

That it was so well suited to the public demand was matter of accident. At that time it was supposed no quantity of cottons could be sold without being bleached; and the idea was to imitate the yard wide goods of India, with which the country was then largely supplied. Mr. Lowell informed me that he would be satisfied with twenty-five cents the yard for the goods, although the nominal price was higher. I soon found a purchaser in Mr. Forsaith, an auctioneer, who sold them at auction at once, at something over thirty cents. We continued to sell them at auction with little variation of the price. This circumstance led to B. C. Ward & Co. becoming permanently the selling agents. In the first instance I found an interesting and agreeable occupation in paying attention to the sales, and made up the first account with a charge of 1 per cent commission, not as an adequate mercantile commission, but satisfactory under the circumstances. This rate of commission was continued, and finally became the established rate, under the great increase of the manufacture. Thus, what was at the commencement rather unreasonably low, became, when the amount of annual sale, concentrated in single houses, amounted to millions of dollars, a desirable and profitable business.

Under the influence of the war of 1812, the manufacture of cotton had greatly increased, especially in Rhode Island, but in a very imperfect manner. The effect of the peace of 1815 was ruinous to these manufacturers.

In 1816, a new tariff was to be made. The Rhode Island manufacturers were clamorous for a very high specific duty. Mr. Lowell was at Washington, for a considerable time, during the session of Congress. His views on the tariff were much more moderate, and he finally brought Mr. Lowndes and Mr. Calhoun to support the minimum of six-and-a-quarter cents the square yard, which was carried.

In June, 1816, Mr. Lowell invited me to accompany him in making a visit to Rhode Island, with a view of seeing the actual state of the manufacture. I was very happy to accept his proposition. At this time the success of the power loom, at Waltham, was no longer matter of speculation or opinion, it was a settled fact. We proceeded to Pawtucket. We called on Mr. Wilkinson, the maker of machinery. He took us into his establishment—a large one; all was silent, not a wheel in motion, not a man to be seen. He informed us that there was not a spindle running in Pawtucket, except a few in Slater's old mill, making yarns. All was dead and still. In reply to questions from Mr. Lowell, he stated, that during the war the profits of manufacturing were so great that the inquiry never was made whether any improvement could be made in machinery, but how soon it could be turned out. We saw several manufacturers; they were all sad and despairing. Mr. Lowell endeavored to assure them that the introduction of the power loom would put a new face upon the manufacture. They were incredulous; it might be so, but they were not disposed to believe it. We proceeded to Providence, and returned by

way of Taunton. We saw, at the factory of Mr. Shepherd, an attempt to establish a vertical power loom, which did not promise success.

By degrees, the manufacturers woke up to the fact that the power loom was an instrument which changed the whole character of the manufacture; and that by adopting the other improvements which had been made in machinery, the tariff of 1816 was sufficiently protective.

Mr. Lowell adopted an entirely new arrangement, in order to save labor, in passing from one process to another; and he is unquestionably entitled to the credit of being the first person who arranged all the processes for the conversion of cotton into cloth, within the walls of the same building. It is remarkable how few changes have since been made from the arrangements established by him in the first mill built at Waltham. It is also remarkable how accurate were his calculations, as to the expense at which goods could be made. He used to say, that the only circumstance which made him distrust his own calculations, was, that he could bring them to no other result but one which was too favorable to be credible. His calculations, however, did not lead him so far as to imagine that the same goods which were then selling at thirty cents a yard, would ever be sold at six cents, and without a loss to the manufacturer, as has since been done in 1843, when cotton was about five or six cents a pound. His care was especially devoted to arrangements for the moral character of the operatives employed. He died in 1817, at the early age of 42, beloved and respected by all who knew him. He is entitled to the credit of having introduced the new system in the cotton manufacture, under which it has grown up so rapidly. For, although Messrs. Jackson and Moody were men of unsurpassed talent and energy in their way, it was Mr. Lowell who was the informing soul, which gave direction and form to the whole proceeding.

The introduction of the cotton manufacture in this country, on a large scale, was a new idea. What would be its effect on the character of our population was a matter of deep interest. The operatives in the manufacturing cities of Europe were notoriously of the lowest character, for intelligence and morals. The question therefore arose, and was deeply considered, whether this degradation was the result of the peculiar occupation, or of other and distinct causes. We could not perceive why this peculiar description of labor should vary in its effects upon character from all other occupation.

There was little demand for female labor, as household manufacture was superseded by the improvements in machinery. Here was in New England a fund of labor, well educated and virtuous. It was not perceived how a profitable employment has any tendency to deteriorate the character. The most efficient guards were adopted in establishing boarding houses, at the cost of the company, under the charge of respectable women, with every provision for religious worship. Under these circumstances, the daughters of respectable farmers were readily induced to come into these mills for a temporary period.

The contrast in the character of our manufacturing population, compared with that of Europe, has been the admiration of the most intelligent strangers who have visited us. The effect has been to more than double the wages of that description of labor from what they were before the introduction of this manufacture. This has been, in some measure, counteracted, for the last few years, by the free trade policy of the gov-

ernment; a policy which, fully carried out, will reduce the value of labor with us to an equality with that of Europe.

The following are the changes in the price of the article first manufactured at Waltham:—

	Cents per yard.		Cents per yard.
1816	30	1829	8¼
1819	21	1843	6¼
1826	18		

From that time the price has fluctuated, with the price of cotton, from 7 to 9 cents per yard.

THE ORIGIN OF LOWELL.

The success of the Waltham Company made me desirous of extending my interest in the same direction. I was of opinion that the time had arrived when the manufacture and printing of calicoes might be successfully introduced into this country. In this opinion Mr. Jackson coincided, and we set about discovering a suitable water power. At the suggestion of Mr. Charles H. Atherton, of Amherst, New Hampshire, we met him at a fall of the Souhegan River, a few miles from its entrance into the Merrimack, but the power was insufficient for our purpose. This was in September, 1821. In returning, we passed the Nashua River, without being aware of the existence of the fall, which has since been made the source of so much power by the Nashua Company. We only saw a small grist mill standing near the road, in the meadow, with a dam of some six or seven feet.

Soon after our return, I was at Waltham one day, when I was informed that Mr. Moody had lately been at Salisbury, when Mr. Ezra Worthen, his former partner, said to him, "I hear Messrs. Jackson and Appleton are looking out for water power. Why don't they buy up the Pawtucket Canal? That would give them the whole power of the Merrimack, with a fall of over thirty feet." On the strength of this, Mr. Moody had returned to Waltham by that route, and was satisfied of the extent of the power which might be thus obtained, and that Mr. Jackson was making inquiries on the subject. Mr. Jackson soon after called on me, and informed me that he had had a correspondence with Mr. Thomas M. Clark, of Newburyport, the agent of the Pawtucket Canal Company, and had ascertained that the stock of that company, and the lands necessary for using the water power, could be purchased at a reasonable rate, and asked me what I thought of taking hold of it. He stated that his engagement at Waltham would not permit him to take the management of a new company, but he mentioned Mr. Kirk Boott as having expressed a wish to take the management of an active manufacturing concern, and that he had confidence in his possessing the proper talent for it. After a consultation, it was agreed that he should consult Mr. Boott, and that if he would join us we would go on with it. He went at once to see Mr. Boott, and soon returned to inform me that he entered heartily into the project; and we immediately set about making the purchases. Until these were made, it was necessary to confine all knowledge of the project to our own three bosoms. Mr. Clark was employed to purchase the necessary lands, and such shares in the canal as were within his reach, whilst Mr. Henry Andrews was employed in purchasing up the shares owned in Boston.

I recollect the first interview with Mr. Clark, at which he exhibited a rough sketch of the canal and the adjoining lands, with the prices which he had ascertained they cold be purchased for. He was directed to go on and complete the purchases, taking the deeds in his own name, in order to prevent the project taking wind prematurely. The purchases were made accordingly, for our joint account, each of us furnishing funds as required by Mr. Boott, who was to keep the accounts.

Our first visit to the spot was in the month of November, 1821, and a slight snow covered the ground. The party consisted of Patrick T. Jackson, Kirk Boott, Warren Dutton, Paul Moody, John W. Boott, and myself. We perambulated the grounds, and scanned the capabilities of the place, and the remark was made that some of us might live to see the place contain twenty thousand inhabitants. At that time there were, I think, less than a dozen houses on what now constitutes the city of Lowell, or rather the thickly settled parts of it:—that of Nathan Tyler, near the corner of Merrimack and Bridge-streets; that of Josiah Fletcher, near the Boott Mills; the house and store of Phineas Whiting, near Pawtucket Bridge; the house of Mrs. Warren, near what is now Warren-street; the house of Judge Livermore, east of Concord River, then called Belvidere, and a few others.

Formal articles of association were drawn up, bearing date the first of December, 1821. They are recorded in the records of the Merrimack Manufacturing Company, as follows:—

"The subscribers hereunto, intending to form an association for the purpose of manufacturing and printing cotton cloth, hereby enter into the following articles of agreement:—

"ARTICLE 1. We will petition the Legislature, as soon as may be, for an act of incorporation under the name of the Merrimack Manufacturing Company.

"ART. 2. The capital stock shall be divided into six hundred shares.

"ART. 3. Assessments may be laid on said shares from time to time, as the company, at any legal meeting, shall direct, and payable at such times as the company shall appoint. The whole amount of such assessments, however, on each of said shares, shall not exceed one thousand dollars.

"ART. 4. Should it hereafter be deemed expedient to increase the capital stock of said company, it shall be done by the creation of new shares, and the subscribers hereunto, their heirs and assigns, shall be entitled to take one-fifth part of the new shares so created for that purpose, to be divided among them, their heirs and assigns, in proportion to the stock now subscribed for; and another one-fifth part of the new shares so created, shall be disposed of by the company in such manner as the majority of them shall direct; but the rights and privileges hereby reserved to the subscribers, their heirs and assigns, shall cease when the capital stock hereinafter subscribed for shall have been doubled. The remaining three-fifths of said new shares shall be divided among those who hold stock at the time of such increase, in proportion to their stock.

"ART. 5. We hereby appoint Kirk Boott treasurer and agent of said company, for five years from the first day of January, A. D. one thousand eight hundred and twenty-two, and agree that he shall be paid three thousand dollars a year for his services in such capacities.

"ART. 6. Whereas, we have been informed that the proprietors of the locks and canals on Merrimack River are possessed of valuable mill seats and water privileges; and whereas Kirk Boott has, with our consent, advanced money for the purchase of shares in the stock of that corporation, and of lands thereto adjoining, we hereby confirm all he has done in the premises, and further authorize him to buy the remainder of the shares in said stock, and any lands adjoining the locks and canals he may judge it for our interest to own, and also to bargain

with the above named corporation for all the mill seats and water privilege s they may own. He must in all cases be governed by such advice and direction as he may receive from the company, or any committee duly apppointed by them.

"ART. 7. The shares to be subscribed for by article 4 are to be paid for at the times and in the manner directed by the company.

"ART. 8. If any person should refuse or neglect to subscribe for the whole number of shares he is entitled to by article 4, the shares not so subscribed for shall belong to the company, to be disposed of as they may appoint.

"ART. 9. Until an act of incorporation shall have been obtained, and the company organized under the same, the business shall be conducted as the majority of the associates may direct, at meetings duly notified and held as hereafter provided for.

"ART. 10. The first meeting of the associates shall be notified in writing, by the agent, to be held on or before the fifteenth of December, one thousand eight hundred and twenty-one, at four o'clock, P. M., at the house of P. T. Jackson, Esq., in Winter-street.

"ART. 11. At their first meeting, the associates shall appoint a clerk, and determine in what manner all future meetings shall be notified and held.

"ART. 12. At all meetings, each person shall have as many votes as shares, and all matters shall be determined by a majority of the votes given. Any person may vote by proxy, authorized by power of attorney.

"ART. 13. Should it be determined by a majority of the original associates, subscribers hereunto, that it would be for the interest of the whole to give to any persons shares in the stock, at cost, we each agree to give up the number of shares so required, in proportion to the stock we now subscribe for, provided we receive the amount we shall have paid thereon, with interest.

"ART. 14. Each subscriber agrees to take and pay for the number of shares set against his name in this original subscription, on the terms prescribed in the preceding articles of agreement.

BOSTON, December 1st, 1821.

Kirk Boott, ninety shares	90
John W. Boott, ninety shares	90
N. Appleton, one hundred and eighty shares	180
P. T. Jackson, one hundred and eighty shares	180
Paul Moody, sixty shares	60
Total	600

"At a meeting at the house of P. T. Jackson, 7th December, it was voted that the following persons may be permitted to subscribe, in conformity with article 13.

Dudley A. Tyng.....shares	5	Thomas M. Clark .....shares	2
Warren Dutton.....	10	D. Webster	4
Timothy Wiggin.....	25	Benj. Gorham	5
William Appleton.....	25	Nathaniel Bowditch	4
Eben Appleton	15		

"*Voted*, That N. Appleton be a committee to write T. Wiggin for an answer.

"*Voted*. That we will sell to the Boston Manufacturing Company 150 shares, at 10 per cent advance; to be supplied by P. T. Jackson 40 shares, N. Appleton 40, Paul Moody 30, J. W. Boott 20, Kirk Boott 20."

An act of incorporation was granted 5th February, 1822. The first meeting of stockholders took place on the 27th February, at which by-laws were adopted and directors chosen, as follows:—Warren Dutton, Patrick T. Jackson, Nathan Appleton, William Appleton, Israel Thorndike, Jr., John W. Boott; Kirk Boott, treasurer and clerk. An assessment was made of $500 per share, to be called for by the directors. The shares in the locks and canals to be conveyed to the several directors

in trust. At a meeting of the directors, the same day, Warren Dutton was chosen president; $200 per share was voted to be paid on the 1st of April. Patrick T. Tackson and Nathan Appleton were appointed a committee to settle Mr. Boott's account, which contained $18,339 for lands of Nathan Tyler, Josiah Fletcher, Joseph Fletcher, and Moses Cheever, and $30,217 paid for 339 shares in the locks and canals.

The Pawtucket Canal belonged to a company incorporated in 1792, by the name of "the Proprietors of the Locks and Canals on Merrimack River," apparently established originally with the view of making the Merrimack River navigable to Newburyport. This object was, in a great measure, defeated by the incorporation in 1793 of the Middlesex Canal, opening a direct communication with Boston. A canal, of very moderate dimensions, was, however, made around Pawtucket Falls, for the passage of rafts of wood and lumber. The income, up to 1820, hardly averaged 3½ per cent per annum, which made the purchase of the stock an easy matter. It consisted of 600 shares, on which $100 had been paid each.

The enlargement of this canal, and the renewal of the locks, was the first and most important measure to be accomplished by the new company. It was decided to make it sixty feet wide and eight feet deep, which, it was estimated, would furnish fifty mill powers. This was commenced with the opening spring of 1822, and prosecuted with the utmost vigor; but it was soon ascertained that it could not be accomplished in the manner proposed in one season. Its cost was upwards of $120,000.

It was decided to place the mills of the Merrimack Company where they would use the whole fall of thirty feet. Mr. Moody said he had a fancy for large wheels. In the mean time a new canal was to be made to the Merrimack River, mills were to be built, a house for Mr. Boott, and boarding houses for the operatives. A contract was made with the Boston Manufacturing Company, or Waltham Company, for machinery for two mills. As it was all important to the Merrimack Company to have the use of the patents of the Waltham Company, and especially to secure the services of Mr. Moody, it was finally arranged to equalize the interest of all the stockholders in both companies, by mutual transfers, at rates agreed upon, so that there was no clashing of interest in any case. This could only be done by a strong feeling of mutual interest in favor of the measure, and a liberal spirit of compromise in carrying it out. Under this arrangement, it was agreed, in August, 1823, to pay the Waltham Company $75,000 for all their patterns and patent rights, and to release Mr. Moody from his contract in their service.

In December, 1822, Messrs. Jackson and Boott were appointed a committee to build a suitable church; and in April, 1824, it was voted that it should be built of stone, not to exceed a cost of $9,000. This was called St. Anne's Church, in which Mr. Boott, being himself an Episcopalian, was desirous of trying the experiment whether that service could be sustained. It was dedicated by Bishop Griswold, but the directors of the Merrimack Company never intended to divest themselves of the control of it. Liberal grants of land were made for other places of worship, and subscriptions freely made by the stockholders for different religious societies.

The first wheel of the Merrimack Company was set in motion on the first day of September, 1823. In 1825, $500 were appropriated for a library. Three additional mills were built. In 1829, one mill was burnt

down; in 1853 another. In 1825, Mr. Dutton going to Europe, Nathan Appleton was appointed president. The first dividend of $100 per share was made in 1825. They have been regularly continued, with few exceptions, averaging something over twelve per cent per annum, to the present time.

The business of printing calicoes was wholly new in this country. It is true that after it was known that this concern was going into operation for that purpose, two other companies were got up—one at Dover, New Hampshire, the other at Taunton, Massachusetts, in both of which goods were probably printed before they were by the Merrimack Company. The bringing of the business of printing to any degree of perfection was a matter of difficulty and time. Mr. Allan Pollock thought himself competent to manage it, and was employed for some time. Through the good offices of Mr. Timothy Wiggin, Mr. John D. Prince, of Manchester, was induced to come out, with his family, in 1826, to take charge of the concern, and continued in the service of the company until 1855. He was then relieved by a younger man from the more active duties. On account of his long services, and the great skill and success with which he had conducted that department, he was by the directors granted an annuity of two thousand dollars per annum for life.

The then recent improvements in printing were of the highest importance. The old process of printing by blocks of wood was in a great measure superseded by the cylinder. The introduction of machines, carrying one or more cylinders, each distributing a different color, was in printing what the invention of Arkwright was in spinning, the source of immense fortunes. Amongst those who availed themselves of it, one of the earliest was the father of the late Sir Robert Peel, who acquired enormous wealth as a printer. It is related of him, that on his London bankers hinting to him that he was using his credit too freely, he quieted their scruples by revealing to them his secret, that he was coining a guinea on every piece of calico which he printed.

The engraving of these cylinders was a most important part of the process, and Mr. Boott made one voyage to England solely for the purpose of engaging engravers. The art was then kept a very close mystery, and all exportation of machinery was prohibited. Dr. Samuel L. Dana was employed as chemist, and through the superior skill and talent of Messrs. Boott, Prince, and Dana, the company was brought to the highest degree of success.

In 1828, an arrangement was made by which Mr. J. W. Paige came into the selling agency on the retirement of Mr. Ward from the firm; and it is not too much to say, that to his skill and good judgment the company is greatly indebted for its success. This office combined with it the preparation of the patterns under a regular designer, and carried with it a commission of 1¼ per cent.

Mr. Warren Colburn was for several years superintendent of the mills, and was succeeded by Mr. John Clark, who held the office until 1848, to the great satisfaction of the directors.

The first printing cloths were made 30 inches wide in the gray, giving them when printed a width of 27 inches, being about two inches above the average of British prints. None other than fast colors were used, whilst a superior durability from the throstle over mule spinning, combined to give them a higher character than attached to any other goods.

In the mean time, Mr. Moody was transferred from Waltham to this place, having charge of the manufacture of machinery in the building erected for that purpose. Mr. Worthen had been employed at an early day. He was a man of superior mechanical genius, and his death, in 1824, was deeply regretted.

At the annual meeting at Chelmsford, May 21, 1823, the directors were authorized to petition for an increase of capital to $1,200,000, and on the 19th of October, 1824, a new subscription of six hundred shares was voted, and a committee appointed to consider the expediency of organizing the canal company, by selling them all the land and water power not required by the Merrimack Manufacturing Company. This committee reported on the 28th February, 1825, in favor of the measure, which was adopted; and at the same time a subscription was opened, by which twelve hundred shares in the locks and canals were allotted to the holders of that number of shares in the Merrimack Company, share for share.

The locks and canals were thus the owners of all the land and water power in Lowell. They made the necessary new canals to bring it into use. The second mill built at Waltham contained 3,584 spindles, spinning No. 14 yarn, with all the apparatus necessary to convert cotton into cloth. This was taken as the standard for what was called a mill power, or the right to draw twenty-five cubic feet per second, on a fall of thirty feet, equal, according to Mr. Francis, to about sixty horse powers, for which the price fixed on was four dollars a spindle, or $14,336 for a mill power and as much land as was proper for the establishment. Of this, $5,000 were to remain subject to an annual rent of $300.

The first sale was to the Hamilton Manufacturing Company, in 1825, with a capital of $600,000, afterwards increased to $1,200,000. This company secured the services of Mr. Samuel Batchelder, of New Ipswich, who had shown much skill in manufacturing industry. Under his management the power loom was applied to the weaving of twilled and fancy goods, with great success. The article of cotton drills, since become so important a commodity in our foreign trade, was first made in this establishment. The Appleton Company and the Lowell Company followed, in 1828. In 1829, a violent commercial revulsion took place both in Europe and this country. It was especially felt by the cotton manufacturers in England, and several establishments in this country, operating with insufficient capital, were prostrated. The Merrimack Manufacturing Company made no dividend that year. During this period of depression, Messrs. Amos and Abbott Lawrence were induced, by some tempting reduction in the terms made by the proprietors of the locks and canals, to enter largely into the business; the consequence of which was the establishment of the Suffolk, Tremont, and Lawrence companies, in 1830. The Boott followed in 1835, the Massachusetts in 1839. These companies involve capital amounting to twelve millions of dollars. They are all joint-stock companies, with a treasurer as the responsible agent, and a superintendent or manager of the mills. The principle on which these corporations have been established, has always been the filling of these important offices with men of the highest character and talent which could be obtained. It has been thought, and has been found to be, the best economy, to pay such salaries as will command the entire services of such men. The directors properly consist of stockholders most largely

interested in the management of their own property. They receive nothing for their services. A very important part also depends on the selling agents, who should be well acquainted with the principles of trade. The success of the establishments at Lowell may be fairly quoted in favor of the system pursued. It is true that, during the present revulsion, the most severe within the memory of the oldest merchant, there is a disposition to attribute the depression of the cotton manufacture to the construction of these companies. It is always easy in such a time to find some new ground of cavil. Corporations, like individuals, will succeed or fail, as they are directed by skill and intelligence, or without them.

The chief trouble, in fact, is with those concerns which have attempted to get on with inadequate capital. The Lowell companies were all originally established on the principle that not more than two-thirds of the capital should be invested in fixtures and machinery, leaving one-third free to carry on the business. In some few instances this principle has been disadvantageously encroached upon, by increasing the original machinery without a proportional increase of capital. One thing is certain, manufactures cannot be carried on to any great extent in this country in any other manner than by joint-stock companies. A large capital is necessary to success. Individuals possessing sufficient capital will not give themselves up to this pursuit. It is contrary to the genius of the country.

There are two leading causes for the depression during the last few years. In consequence of the great profits in the years 1844, 1845, and 1846, both in England and this country, the manufacture was extended beyond the wants of the country; and the disturbances in China have interfered materially with our increasing trade to that region.

It is also evident that the tariff of 1846 has had a most injurious effect upon the cotton manufacture. This is shown most conclusively by the increased exports from England to this country, as stated from official documents in "Burns' Commercial Glance," a paper published in Manchester, under the patronage of the Manchester Chamber of Commerce. It gives the following as the exports of cotton goods to the United States, in millions of yards, for the years—

	1844.	1845.	1846.	1854.	1855.	1856.
Plain calicoes.....	10	12	10	70	81	85
Printed and dyed calicoes...	12	13	13½	78	81	97

Showing an increase, since the passage of the tariff of 1846, of over 600 per cent, without including a large amount from the Clyde. The entire repeal of the minimum has been ruinous to attempts to carry the manufacture into the higher branches, especially in fancy goods. A continued duty of three or even two cents the square yard would have saved the manufacturer from heavy losses.

It is a singular circumstance, that whilst in 1816 William Lowndes and John C. Calhoun saw clearly the benefit which the cotton-planting States would derive from the introduction of the manufacture into the country, the cotton planters themselves have ever been the most deadly enemies of the manufacture which has done so much for the increase of the consumption of cotton.

It was the Americans who first introduced the manufacture of heavy goods by the application of the least amount of labor to the greatest quantity of raw material, thus producing a description of goods cheaper to the consumer than any heretofore existing. This system the English have been obliged to follow, and have even adopted our name of domes-

tics, whilst they have the advantage of using the cheaper cotton of India, which the Americans have not yet done, but which they will surely find themselves compelled to do.

In 1818, Mr. Calhoun visited the establishment at Waltham, with the apparent satisfaction of having himself contributed to its success. It is lamentable to think that in 1832, under the alluring vision of a separate Southern confederacy, he should have become the active enemy of the manufacture which was doing so much for the interest of the planters, and that the influence of his name has continued to keep them in that error.

In November, 1824, it was voted to petition the Legislature to set off a part of Chelmsford as a separate township. The town of Lowell was incorporated in 1826. It was a matter of some difficulty to fix upon a name for it. I met Mr. Boott one day, when he said to me that the committee of the Legislature were ready to report the bill. It only remained to fill the blank with the name. He said he considered the question narrowed down to two, Lowell or Derby. I said to him, "then Lowell by all means," and Lowell it was.

There was a particular propriety in giving it that name, not only from Mr. Francis C. Lowell, who established the system which gave birth to the place, but also from the interest taken by the family. His son, of the same name, was for some time treasurer of the Merrimack Company. Mr. John A. Lowell, his nephew, succeeded Mr. Jackson as treasurer of the Waltham Company, and was for many years treasurer of the Boott and Massachusetts mills; was largely interested, and a director in several other companies. There is no man whose beneficial influence in establishing salutary regulations in relation to this manufacture was exceeded by that of Mr. John A. Lowell. The name of Derby was suggested by Mr. Boott, probably, from his family associations with that place, it being also in the immediate vicinity of one of the earliest seats of the cotton manufacture.

In 1836, the municipal government of Lowell was changed to that of a city.

The capital of the Merrimack Company was further increased $300,000 in 1828; $500,000 in 1837, and $500,000 in 1849; making the present amount of $2,500,000.

The death of Mr. Boott, in 1837, was a severe loss to Lowell. He was a high-toned gentleman, of good education. He had acquired the elements of engineering at a government establishment in England, was a man of great energy and intelligence, and by his ingenuous and manly deportment gained the confidence of all with whom he came in contact. His place as treasurer of the Merrimack Company was supplied for a short time by Mr. Francis C. Lowell, and then by Mr. Ebenezer Chadwick, the success of whose administration gave the best evidence of his fitness for the office. He died in 1854, and was succeeded by Mr. Francis B. Crowninshield, the present incumbent.

The prices of Merrimack prints have varied as follows:—

The average price per yard in		1825 was ..... cents	23.07
"	"	1830	16.36
"	"	1835	16.04
"	"	1840	12 09
"	"	1845	10.90
"	"	1850	9.24
"	"	1855	9 15

POPULATION OF LOWELL.

1830.	1840.	1850.	1855.
6,477	20,981	32,620	37,553

The building of machinery was continued by the proprietors of the locks and canals until 1845, when the machine shop and boarding-houses appurtenant were sold to a separate corporation; at which time the remaining lands were sold at auction, and the proceeds divided among the stockholders.

In 1846, an improvement of great importance was made by the Locks and Canals Company. It was found that the current of the original canal was so great, under the increased use of the water, as materially to diminish its effective power. It was therefore determined to create the present grand canal along the bank of the river, a work which does the greatest honor to the engineer, J. B. Francis. Its cost was over $500,000, which hardly exceeded his estimate.

A further important measure was the purchase of the outlet of Lake Winnipisseogee, and of the rights necessary to control it. A change was also made in the tenure of the water-power, by which the different corporations became joint owners of it as proprietors instead of partial lessees, as heretofore.

The original water-wheels were made upon the principle recommended by Smeaton, the hydraulic engineer; supposed, when constructed in the most perfect manner, to give the greatest possible power of the weight of water upon the wheel, with the least possible loss or waste in receiving or discharging it. When constructed in the best manner, however, they were not estimated to realize more than 75 per cent of the actual power of the water expended.

These have been superseded by the Turbine wheel, a French invention, greatly improved by Uriah A. Boyden, which acts on a vertical shaft through discharging tubes, on the principle of reaction, with no loss from back water other than the loss of head. These have been fully described in an elaborate work by James B. Francis, entitled "Lowell Hydraulic Experiments," showing that they have been found capable of realizing 88 per cent of the power expended. He estimates the average result at 75 against 60, which he considers the average of the best water-wheels.

As the old wheels in Lowell have decayed, they have been replaced by Turbines, until very few of the old ones remain. The whole power used by the mills in Lowell, being 139 mill powers, is estimated by Mr. Francis as about equal to 9,000 horse powers.

The Boston and Lowell Railroad was among the very first established in the United States. So early as 1830, a committee was appointed on the subject, and a bonus of $100,000 was voted by the Locks and Canals Company, payable on its completion. A subscription was obtained, and Mr. Jackson undertook to carry it into effect. His usual energy and enterprise were shown in its completion, with a double track, on a scale of solidity and permanence which has seldom been followed. It was opened for travel in June, 1835, earlier than any other railroad in Massachusetts, for its entire length, and with the exception of the Camden and Amboy, to Bordentown, in the United States.

Art. II.—TRADE OF FRANCE.

FRANCE UNDER THE EMPIRE — CAUSES OF GREATER ACTIVITY — GOLD — GENERAL CAUSE—CAUSES PECULIAR TO FRANCE — COMPARATIVE EXPORTS — AFFAIRS IN FRANCE—PROGRESS OF WEALTH—UNITED STATES AND FRANCE—FLOATING CAPITAL—ABSORBED IN BUILDING—COMMERCIAL POLICY OF FRANCE—GENERAL COMMERCE TABLES—OFFICIAL VALUE—ACTUAL VALUE—SPECIAL COMMERCE TABLES—INCREASE OF VALUES — DECLINE IN 1857 — EXPORTS FROM FRANCE — QUANTITIES AND VALUES—DRY GOODS—SILKS—WINES—IMPORTS INTO FRANCE—QUANTITIES AND VALUES—IMPORT OF SPIRITS — DUTIES ON GRAIN — EFFECT OF FREE CORN TRADE—BELGIUM IMPORTS—CATTLE—RICE — SUGAR—FREE TRADE PROGRESS—EXCHANGES WITH DIFFERENT COUNTRIES—1847-1857—AVERAGE INCREASE—COMMERCIAL CITIES OF FRANCE—PARIS, THE CENTER—SPECIE MOVEMENT—IMPORTS AND EXPORTS OF THE METALS— GAIN TO FRANCE — BANK OF FRANCE — PURCHASES OF GOLD—UNITED STATES BILLS—QUANTITY OF GOLD BOUGHT—PREMIUM PAID—LINE OF DISCOUNTS—DIVIDENDS PAID PER SHARE — INCREASE OF CAPITAL — RELEASE OF USURY RESTRAINT—EFFECT ON DISCOUNTS—BRANCH OPERATIONS—ACCUMULATION OF THE METALS—COMPARATIVE TONNAGE —CUSTOMS REVENUE.

THE trade and commerce of France under the Empire have been developed in an extraordinary manner, not only in a greater ratio than ever before in that country, but also more rapidly than, contemporaneously, in other countries. The general cause of greater activity which has affected all countries alike in the last ten years has been the gold product, which has stimulated a great activity in all branches of industry. It has, doubtless, everywhere, by holding out the hope of greater reward, induced the production of all descriptions of wealth, and probably in a far greater ratio than the increased production of gold itself. The actual exports of the three leading countries for several years back indicate the nature of the impulse which has been given to production by that cause, since each nation exports its surplus :—

ANNUAL EXPORTS OF GREAT BRITAIN, FRANCE, AND THE UNITED STATES.

Years.	Great Britain.	France.	United States.
1849.....	$316,752,417	$269,101,000	$131,710,081
1850.....	345,571,901	287,025,100	134,700,238
1851.....	360,096,102	305,437,500	178,620,138
1852.....	377,521,101	315,191,210	154,931,147
1853.....	490,100,000	381,137,500	189,869,162
1854.....	485,200,000	353,625,171	215,156,804
1855.....	463,130,331	406,312,170	192,751,135
1856.....	547,252,457	435,011,000	266,438,051
1857.....	591,231,447	441,927,500	278,906,713

The United States exports here given do not include the precious metals, but all other products of industry, being mostly food and materials required by the greater manufacturing industry of Great Britain and Europe. In France, a somewhat different state of affairs has existed, since the advent of the second Empire seems to have imparted a sense of greater security to property to the existing order of political affairs, while the free trade proclivities of the government have aided the industrial impulse imparted by the gold discoveries. There have, however, been many drawbacks upon the prosperity of the country. These have been in chief the Russian war, the failure of the harvests, silk, wine, and cereal, and extensive inundations. In spite of these large drawbacks not only the internal industry, but the external commerce of France, has indicated a great increase of national wealth. The progress of wealth, not only in France but in England, is somewhat different from what it is in the United States. Those old countries are nearly, so to speak,

"built." Their roads, towns, cities, dwellings were all made long years since by the industry of previous generations, some of which were kept poor by the efforts made in those respects. The present accumulations of wealth are in a more changeable form, and, as floating capital, accumulate in a manner to enhance the value of public securities and landed property. In the United States, on the other hand, although a vast population comes in from abroad every year, an immense outlay is annually incurred for the construction of roads, buildings, towns, counties, States. In new States and Territories, that but a few years since were wildernesses, towns now flourish, containing stone dwellings that vie with those of the old States. Even in the oldest cities the process of demolition and reconstruction is constantly going on. New York absorbs in this way $40,000,0000 per annum. This is carried on to an extent unknown abroad, where prosperity has a more exchangeable and available form. The modifications of the restrictions that have so long been imposed upon interchange in France, have also greatly stimulated industry by aiding in increasing its reward. The tables recently published by the Custom-house authorities of France are illustrative of these facts. The general movement of the commerce is given as follows:—

GENERAL COMMERCE OF FRANCE.

	Imports.		Exports.	
Years.	Official.	Actual.	Official.	Actual.
1850..francs	1,174,000,000	1,051,201,000	1,531,000,000	1,419,000,000
1851.....	1,158,000,000	1,094,000,000	1,629,000,000	1,520,000,000
1852.....	1,488,000,000	1,892,000,000	1,682,000,000	1,680,000,000
1853.....	1,682,000,000	1,696,000,000	1,861,000,000	2,033,000,000
1854.....	1,709,101,000	1,870,000,000	1,788,000,000	1,886,000,000
1855.....	1,952,000,000	2,160,000,000	2,027,000,000	2,167,000,000
1856.....	2,268,000,000	2,740,000,000	2,320,000,000	2,659,000,000
1857.....	2,236,000,000	2,689,000,000	2,357,000,000	2,639,000,000

The official value is that fixed by law in 1826; the actual value is that for each current year. The official value, therefore, expresses more relative quantities, and, as compared with the actual value, gives relative rise or fall in prices for the year. Thus, for several years the exports of France have shown a greater rise in the actual than in the official value. In 1852 they were nearly equal, but up to 1856 the actual had risen, in round numbers, 1,000,000,000 francs, while the official had improved but 700,000,000 francs. The year 1857, being one of panic, we observe that the actual value decreased 20,000,000 francs, while the official showed an increase of 37,000,000 francs, a larger quantity of goods was valued at less money. This "general commerce" of France embraces all foreign goods exported and imported for transit. The "special commerce" embraces only French goods exported, and the merchandise imported for French consumption. The figures for this trade are as follows:—

SPECIAL COMMERCE OF FRANCE.

	Imports.		Exports.	
Years.	Official.	Actual.	Official.	Actual.
1850..francs	757,000,000	781,000,000	1,124,000,000	1,011,000,000
1851.....	791,200,000	781,000,000	1,239,000,000	1,119,000,000
1852.....	1,007,000,000	1,006,000,000	1,251,000,000	1,278,000,000
1853.....	1,123,000,000	1,217,000,000	1,386,000,000	1,572,000,000
1854.....	1,158,000,000	1,291,000,000	1,261,100,000	1,413,700,000
1855.....	1,366,000,000	1,594,000,000	1,442,000,000	1,558,000,000
1856.....	1,538,000,000	2,011,000,000	1,650,000,000	1,924,000,000
1857.....	1,484,000,000	1,912,000,000	1,606,000,000	1,694,000,000

Included in these special values are the figures which represent the import of foreign produce and wares that have undergone perfection by French industry and then been re-exported. The same general observations apply to this special trade as to the general commerce in relation to values. The two values, relatively, show a considerable decline in the last year. If we take the leading articles of French import for this year in quantities and values, we have results as follows:—

EXPORTS FROM FRANCE.

	Quantity.			Value in pounds sterling.		
	1855.	1856.	1857.	1855.	1856.	1857.
Wines, spirits.gals.	30,259,904	31,303,739	26,293,958	8,360,000	10,728,000	8,568,000
Grain .....qrs.	9,908	67,706	85,781	248,000	304,000	408,000
Flour.....tons	10,078	8,876	14,803			
Cattle.....No.	116,702	124,822	147,498	548,000	592,000	608,000
Cotton thread.tons	235	259	483	28,000	32,000	72,000
Linen thread.....	188	205	208	24,000	36,000	44,000
Hemp and flax ..	300	1,147	2,134	12,000	52,000	48,000
Madder.	16,300	16,069	12,023	584,000	684,000	616,000
Machinery... ...	3,425	3,412	3,716	156,000	176,000	196,000
Metal work.....	10,504	11,877	12,911	1,948,000	1,636,000	1,648,000
Paper.....	7,888	8,384	8,853	500,000	572,000	600,000
Furniture.....	....	.....	.....	210,000	296,000	332,000
Dressed leather..	4,101	4,298	4,467	252,000	352,000	312,000
Gloves, & leather made up.....	1,825	2,303	2,535	2,060,000	2,812,000	3,200,000
Prepared leather.	.....	.....	.....	1,356,000	1,764,000	2,040,000
Silk, raw & dyed.	395	493	474	1,148,000	1,576,000	1,532,000
Tissues, cot'n, silk, woolen, & linen.	20,239	20,375	20,796	24,380,000	29,056,000	27,940,000
Sugars, refined ..	32,263	35,766	33,939	1,032,000	1,432,000	1,304,000
Glass	29,276	30,490	30,605	660,000	748,000	800,000
Porcelain, pottery.	8,676	11,019	12,052	352,000	456,000	464,000
Soap.....	7,524	7,851	6,685	.....	.....	.....
Miscellaneous ...	.....	.....	.....	17,452,000	21,192,000	22,688,000

The exports of wines show a decline from last year, but although there was less by 4,000,000 gallons exported than in 1855, there was nearly $1,000,000 more money obtained of the export. The exportations of wine show a falling off last year as compared with the two previous ones, which may be taken as a natural consequence of the oïdium, while those of spirits show a decrease as compared with last year, but an increase as compared with the year before. The quantities and values of both grain and flour exported were larger, but unimportant, in either year as compared with the former exports of France. Of dry goods, or textile fabrics, it will be observed that the weight exported did not much vary in either year, while the price, mostly for the silks, rose 20 per cent in 1856 over 1855, but subsided again in 1857, and this year still further, under the prospects of the new crops. The value of silks exported in 1857 was 98,000,000 francs, against 147,000,000 francs in 1856. On the other hand, cotton goods, which had been at 73,000,000 francs in 1856, rose to 100,000,000 in 1857. The leading articles imported into France also present some points of interest:—

IMPORTS INTO FRANCE.

	Quantity.			Value in pounds sterling.		
	1855.	1856.	1857.	1855.	1856.	1857.
Wines, spirits...gals.	13,645,796	11,667,348	22,133,269	2,144,000	2,152,000	3,364,000
Cattle*.....No.	678,526	608,635	625,396	2,816,000	2,240,000	2,116,000
Corn.....qrs.	1,285,843	2,859,212	1,852,911	4,908,000	12,132,000	4,648,000
Flour.....tons	27,974	83,830	11,132			
Rice.....	82,282	67,446	95,611	708,000	1,380,000	1,464,000
Sugar, colonial...	90,747	93,581	84,961	2,492,000	3,104,000	3,480,000
Sugar, foreign ...	59,654	32,899	17,680	1,384,000	1,172,000	1,504,000
Coffee.....	27,947	23,222	26,740	1,660,000	1,800,000	1,327,000
Coals.....	3,817,161	3,915,519	4,205,721	3,572,000	3,400,000	3,212,000
Machinery.....	2,294	4,183	5,037	140,600	244,000	304,000
Pig-iron.....	118,209	127,272	94,740	804,000	916,000	684,000
Bar-iron and rods.	54,610	68,696	22,957	528,000	700,000	256,000
Copper.....	11,791	91,399	11,093	1,508,000	1,196,000	1,444,000
Lead.....	33,942	23,928	20,478	576,000	604,000	516,000
Zinc.....	25,605	19,139	25,499	636,000	496,000	712,000
Tea.....	183	197	233	.....	.....	.....
Nitrate of soda & potass.....	10,452	8,061	13,172	292,000	212,000	392,000
Miscellaneous.....	.....	.....	.....	20,876,000	24,488,000	25,862,000

The importation of wines and spirits seems to hold a grade nearly as high in point of quantity as the exports of the same articles. The value, however, shows a great difference. The spirits imported are 3½ francs per gallon, and when re-exported are 8½ francs per gallon. This indicates the operation of exporting from the United States "pure spirits" to be "worked" (travaillées) in France, and then re-imported as French liquor, to be called any name that the buyer fancies. The importation of grain has been and continues large. The decree of September 5, 1853, proroguing the duties on grain, flour, rice, potatoes, and dried vegetables, has been renewed annually, and October 9, it was again renewed to September 30, 1859. It facilitates the import of grain into France, but as the crops are good it may be taken rather as a disposition to persevere in the way of modified duties. When the English corn duties were modified in 1842, the question was discussed also in France and Belgium as well as in England, and the protectionists in all three countries declared that each country would be ruined by the others. According to the English and Belgians the surplus of France would destroy agriculture in those countries, and the French writers proved to a demonstration that the surplus of England and Belgium would put an end to grain growing in France. The result has been that each nation consumes all its own grain and more besides. Belgium imports 94,000 tons and prohibits the export, France imports 400,000 tons and stops her exports, and Great Britain imports 800,000 tons and has none to spare, while the price in each country is this year lower than for some years previous. British agriculture was also to be ruined by French cattle. The above figures shows a considerable import into France, which obtained last year 69,891 head of cattle more than in the preceding year, and at a less cost by £124,000, which fact may be taken as evidence of improvement in the feeding and condition of the population, and is, moreover, one of the benefits of progress towards free trade, since the inhabitants of France are so far provided with better nourishment and at less expense.

The importation of rice was very considerably increased, but at low

* In this number there has been a decrease in horned cattle and an increase in sheep.

prices, since she got 95,611 tons at $8 per ton in 1857, while she paid $11 per ton in 1855. The consumption of foreign and colonial sugar declined under the rise in the value of that article and the substitution of beet-root sugar. It is remarkable, however, that the consumption of coffee has not increased, while that of tea has largely improved. The general result is of a large and healthy business, following those articles which are necessary to the maintenance of French manufacture The removal of all duties on those articles would give a great impulse to their trade.

The most interesting feature in French commerce is, however, the movement in the precious metals. These have been as follows:—

VALUE OF GOLD AND SILVER IMPORTED INTO, AND EXPORTED FROM, FRANCE, FROM THE OFFICIAL RETURNS IN EACH YEAR FROM 1849 TO 1857, INCLUSIVE, CONVERTED INTO BRITISH MONEY AT THE RATE OF TWENTY-FIVE FRANCS TO THE POUND STERLING.

	Gold.		Silver.	
	Imported.	Exported.	Imported.	Exported.
1849	£476,000	£224,000	£11,640,000	£1,840,000
1850	2,440,000	1,760,000	6,160,000	3,280,000
1851	4,600,000	1,240,000	7,120,000	4,000,000
1852	2,360,000	1,680,000	7,160,000	7,280,000
1853	12,720,000	1,160,000	4,480,000	9,160,000
1854	19,200,000	2,560,000	3,960,000	6,520,000
1855	15,236,000	6,500,000	4,836,000	12,720,000
1856	18,600,000	3,380,000	4,395,000	15,740,000
1857	22,748,000	4,916,000	3,932,000	18,324,000
Total	£154,380,000	£34,944,000	£64,883,000	£78,864,000

This gives a total in nine years as follows:—

	Gold.	Silver.	Total.
Imported	£154,380,000	£64,883,000	£219,263,000
Exported	34,944,000	78,864,000	113,808,000
Excess import	£119,436,000	.....	£105,455,000
Excess export	.....	£13,981,000	.....

Thus, France has been greatly enriched with the precious metals. The large import of silver in 1849 was the result of the revolution and socialist fears of the public, when they gave their goods for silver to hoard almost at any price. It was not until 1852 that the silver began to flow out of France and gold to be substituted. The result is that France has her full share of gold. The operations of the Bank of France in buying gold since the 11th of July, 1855, have gone far to keep up the current into France. The trade between the United States and England is always largely in favor of the United States, but the reverse is the case with France; consequently, there are always American bills running on England in favor of France, which, being bought up, have favored the purchases of gold, which have amounted as follows:—

PURCHASE OF GOLD BY THE BANK OF FRANCE.

	Gold purchased.	Premium paid.
July 11 to December 31, 1855 .....francs	254,400,000	3,920,600
Year 1856	557,900,000	6,249,800
Year 1857	564,600,000	4,046,000
Transport, 1855	.....	1,044,600
Transport, 1857	.....	631,200
Total	1,376,900,000	15,892,200

The premium in 1857 was about two-thirds that of 1856, but the average cost of the purchases was 1¼ per cent, including the cost of transportation to branches and back. These purchases of gold enabled the bank to sustain its line of discounts beyond what they otherwise would have been, and, consequently, to increase its profits, which have been as follows:—

	Dividends.	Per share. 1st 6 mos.	2d 6 mos.
1855 .....francs	18,250,354	100	100
1856	24,821,062	137	135
1857	30,477,500	160	174

The law, or rather the bank statute, of the 9th of June, 1857, has, it is well known, brought some substantial alterations into the organization of this great credit establishment, the most important of which was, that of doubling the original capital of the bank, which was found to be insufficient, and no longer in harmony with its increased business. For this purpose, the number of shares of 1,000 francs each was increased from 91,250 to 182,500, with the limitation, that the holders of the old shares only should be entitled to the new ones. From a table annexed to the report it is shown, that, at the end of the year 1857, the 182,500 shares had been concentrated into the hands of only 6,888 shareholders, making an average of more than twenty-six shares to each holder. But there had been 7,454 transfers of 52,084 shares; so that more than one-fourth of the shares had changed hands within the year.

We may here remark, that of the 55,786 transfers (comprising 385,440 shares) which have taken place during the whole decennial period, only 2,170 (including 32,277 shares) were brought about by the death of the owners, or by way of inheritance.

As a compensation for the compulsory doubling of the capital, government has released the bank from the legal limitation of the rate of interest, namely 6 per cent; and the crisis of the last quarter of 1857 afforded her an opportunity of availing herself of this exceptional permission; for the rate of discount which had been reduced to 5½ per cent on the 26th of June, was advanced on the 13th of October to 6½ per cent, on the 20th of October to 7½ per cent, and on the 11th of November to 8, 9, and 10 per cent, according to the nature of the bills under discount—whether one, two, or three months' date. On the 27th of November the rate was reduced to 7, 8, and 9 per cent; on the 7th of December it was reduced to 6, 7, and 8 per cent; on the 18th the rates were equalized to 6 per cent; and on the 29th to 5 per cent. The short dated paper which the bank had insisted upon in 1856 was now taken into consideration, in consequence of the high rate of interest. During the sixty-five days, when the bank charged more than 6 per cent, the profits of that excess amounted to 1,535,506 francs, (£57,420,) which, by the law of the 9th of June, 1857, was not devisible amongst the shareholders, but added to the capital. The law was intended to weaken the prospects which might stimulate the bank unnecessarily to increase the rate of interest in times of pressure, for the mere sake of profit. The intended check, however, was not sufficiently strong; for, during the crisis, an opinion generally prevailed, that the Bank of France had too rashly followed the rapid changes made by the Bank of England, and to a far greater extent than was justified by the relative state of the money market in Paris. The figures given in the report seem to justify this opinion; for, by the

high rate of discount, the bank had not only counteracted the increasing demand for credit, but had reduced it below the average standard of seven years, as shown in the following table of monthly discounts:—

DISCOUNTS OF THE BANK OF FRANCE IN 1857.

	Parisian bank, millions.	Branches, millions.	Total, millions.
January	163.5	337.6	501.1
February	138.4	294 2	432.6
March	178.9	274.8	448.7
April	200.4	293.3	493.7
May	147.9	241.2	389.1
June	102.3	49.1	151.4
July	283.4	583.5	866.9
August	148.3	264.6	412.9
September	178.3	309.0	487.3
October	187.8	293.6	481.4
November	153.0	203.7	356.7
December	204.3	261.9	466.2
Total	2,081.5	3,406.5	5,488.0

The last line of the table shows that the discount operations had generally increased, to which the branches have contributed more than the half. This is the most interesting phase in the recent historical development of the French bank. Until 1845, the bank had not made the least use of her privilege to establish branches in the provinces; she did not think worth while to come into direct connection with the provincial merchants. She was only induced to make some attempts in that line, after some private banks had been established, and had successfully carried on operations in discounts and deposits in the provinces. She had at first only nine branches, until the law of 1848, by which the provincial private banks were dissolved, and which compelled the Bank of France to establish branches in the provinces. At the end of 1857, thirty-nine of these branches were in full operation, while four more are to be opened in the course of the present year. The bank had considered the obligation of erecting branch banks as a burden and as a sacrifice, and she complied with the instruction slowly and reluctantly. Now, however, it shows itself, that the provincial banks possess the elements of development to a far greater extent than does even the principal bank herself. They contribute already more than three-fifths to the total operations of the bank, though their share in the total working expenses, which amounted in 1857 to 5,400,000 francs, is less than the half. To the gross profit, amounting in 1857 to 40,831,549 francs, the branches have contributed 17,139,993 francs.

The accumulation of metals in the French bank had in September, 1858, reached an amount larger than ever before, $116,953,872, and the rate of interest was again lowered to 3 per cent, and the discounts had fallen to 199,000,000 in the branches, and 170.6 millions in the Paris Bank, indicating a very low state of trade for the season of the year. The operations of the branch banks in the departments has aided, no doubt, in connection with the relaxations in commercial restraints to promote activity in the local manufactures, and by so doing to stimulate into activity that industry on which depends the ability of the people to consume dutiable goods, by creating an equivalent for them. The operation of railroads has also been to distribute money in the departments for local labor, and, by so doing, not only to enhance the means of purchasing goods, but promoting the ability to do so.

The official report remarks as follows on the trade of France with each country in 1857 as compared with 1847. The table of exchanges, with each country separately, gives the following results :—

	1847. Millions.	1857. Millions.	Inc'se p. ct.
England.....	262	974	272
Belgium.....	210	410	100
Switzerland.....	181	406	129
Sardinia.....	148	249	68
Zollverein.....	130	422	125
Russia.....	122	127	4
Spain	120	307	156
Turkey.....	117	220	88
Two Sicilies....	50	86	72
Holland	38	69	82
Hanse Towns...	37	59	59
Norway, Sweden, and Denmark.	35	49	40
Tuscany.....	31	55	77
Austria.....	23	40	74
Roman States...	8	15	88
Portugal.....	5	18	260
Greece	4	14	250
Total.....	1,541	3,520	132
United States ..	323	645	100
Brazil.....	47	134	185
Other States of America.....	126	369	200
Total.....	496	1,148	142
Asia	40	148	270
Africa.....	48	136	183
French colonies—			
Algeria.....	78	134	70
Others.....	162	243	50
Total.....	2,340	5,328	128

The average increase of the commerce of France is, for the ten years between 1847 and 1857, in the proportion of 128 per cent. But the trade with some countries more particularly, as is seen by the above table, has assumed still greater extension, and the seven following are named in the order of relative increase :—England, Asia, Portugal, Greece, the Zollverein, Brazil, Africa, Spain, and Switzerland. The same work presents us likewise with a valuable comparison of the trade of the principal French ports :—

	Imports, millions.	Exports, millions.	Total, mill.
Havre.....	541	729	1,270
Marseilles.....	675	458	1,133
Boulogne.....	154	176	330
Bordeaux.....	133	150	283
Paris	4	273	277
Saint Louis	150	109	259
Jeumont	183	20	203
Lyons.....	..	154	154
Nantes	93	26	119
Dunkerque.....	80	37	117
Strasburg.....	43	51	94
Valenciennes....	38	29	67
Rouen	41	25	66
Cette.....	34	27	61

This table brings strongly into relief the preponderance of our two principal commercial ports, Havre and Marseilles; the first, the key of the transatlantic trade—the second, of the Mediterranean. We have already observed that our total traffic by sea amounted to 3,830,000,000 of francs, in making up which sum Havre and Marseilles count for 2,403,000,000 francs, or very nearly two-thirds of our entire foreign trade by sea. Somewhat to our surprise we find Boulogne (the principal port on the coast for the produce of French fisheries) entitled to rank as the third port on the incontestible authority of figures; Bordeaux, the great medium of intercourse with the American colonies, ranks only as the fourth; Paris, center of universal operations as a great commercial capital, must be content with the fifth place; Lyons does only half as much business as Paris; Nantes, the great entrepot of the Isle of Bourbon and Brazil, and Dunkerque, one of the great northern timber markets, march nearly abreast; and Strasburg, which principally carries on business with Southern Germany and Switzerland, presses closely behind them. The immense figures attached to the names of Saint Louis and Jeumont will, no doubt, cause some surprise. These two frontier towns, whose com-

merce is set down at 462,000,000 francs, are the two most important points of the transit into Switzerland and Belgium. Through Jeumont enter more than 100,000,000 francs' worth of cotton and silk tissues which only cross our territory, and 15,000,000 francs' worth of coals from the pits of Charleroi; Saint Louis, among other articles, has the great transit of cotton from Havre for Switzerland.

If we refer to the shipping returns, the same progressive advance appears to have been made. The total number of vessels entered in 1855, of all descriptions, was 22,987; in 1856, 25,673; and in 1857, 25,736; so that during the last year, notwithstanding the crisis, there was a slight increase. The vessels which entered and their tonnage, French and foreign, were as under during the three years:—

VESSELS ENTERED.

	1855.	1856.	1857.
French.....	9,587	10,312	10,971
Foreign	13,400	15,361	14,755

The total tonnage which entered in 1857 was 4,121,777, of which 1,636,917 was French. In 1856, the total tonnage was 4,068,781, of which 1,248,086 was French; so that the French tonnage of ships entered considerably increased:—

VESSELS CLEARED.

	1855.	1856.	1857.
French.....	5,768	5,950	7,010
Foreign	8,002	8,383	8,967
TONNAGE.			
French.....	933,948	1,052,135	1,213,822
Foreign	1,096,750	1,255,355	1,376,344

The information contained in the above returns is highly important to the commercial and manufacturing part of the community, and affords data by which the commercial policy of France must be judged. It seems that although France has great agricultural resources, she is a large importer of grain and flour; and also of coals and machinery. In her exports she is a powerful competitor in many of the English domestic manufactures, such as glass, soap, paper, leather, gloves, dress, and furnitures. So that whatever complaints may be made against the restrictions upon French commerce and manufactures, they have not succeeded in impeding the progress of French trade and navigation, which increase rapidly as those restrictions are modified.

The customs duties of France have undergone an increase following the development of trade indicated in the above tables. These duties have been as follows:—

CUSTOMS DUTIES OF FRANCE.

	Salt dues.	Miscellaneous.	Navigation.	Export.	Import.	Total.
1852 ...	27,001,904	2,787,878	8,804,143	2,273,977	139,863,655	175,235,557
1853 ...	28,111,575	3,120,262	3,210,637	1,881,858	141,607,552	177,931,884
1854 ...	26,602,743	3,851,750	2,099,014	1,507,838	150,587,303	184,648,652
1855 ...	28,231,147	3,104,203	3,256,671	1,373,792	190,398,745	226,364,854
1857 ...	29,588,200	2,431,202	4,147,109	1,807,698	183,222,001	221,196,210

The aggregate has gained 42,000,000 on the import duties since 1852, and the general figures show an increase in the consumption of dutiable products in France. It will be borne in mind that these figures do not include the tobacco regie, which yields a large revenue in addition.

Art. III.—COMMERCIAL AND INDUSTRIAL CITIES OF THE UNITED STATES.

NUMBER LIX.

EVANSVILLE, INDIANA.

SITUATION OF THE CITY—FORMATION—ORIGIN OF NAME—SEAT OF VANDERBURGH COUNTY—INCORPORATED—FIRST TAX LIST—ROUTES TO MARKET—DEPOT FOR BOATMEN—STATE BANK—INTERNAL IMPROVEMENTS—CANAL—RAILROADS—INFLATION OF 1836—COMPLETION OF CANAL—SURROUNDING SOIL—MINERAL WEALTH—IRON WORKS—COAL—GENERAL ADVANTAGES—PROGRESS OF RAILROADS—POPULATION AND TRADE—MERCHANDISE SALES—GROCERY BUSINESS—DRY GOODS BUSINESS—READY-MADE CLOTHING—MANUFACTURES—FOUNDRIES—FURNITURE—STARCH FACTORY—PAPER MILL—SHIP-YARD—COMMISSION BUSINESS—TABLE OF EXPORTS—TOBACCO MARKET—HAY—FLOUR—STEAMBOATS—BANKING—STATE BANK—BANK OF THE STATE OF INDIANA—INSURANCE COMPANIES.

Among the cities of the West that have apparently a brilliant future before them, Evansville, Indiana, is one of the most promising. It is now the principal commercial city of that State, and is situated on the Ohio River in latitude 38° 8′ north, and 87° 29′ west. The altitude, at Evansville, of the Ohio River at low water mark is 320 feet above the level of the Gulf of Mexico at the outlet of the Mississippi. The elevation of Water-street above the Ohio, at low water, is 50 feet, thus making the base of the site of Evansville 370 feet above the sea.

The city is located on an elevated plain or second bottom of the Ohio River, and is entirely above the highest floods. The plain is not entirely level, but is interspersed with small hills, and a few of considerable extent and elevation. Oak Hill, about two miles from the city, rises about seventy-five feet above the surrounding plain, and is one of the most extensive and beautiful.

In 1813, Warrick County was formed out of that portion of Knox County south of "Rector's base line," extending from the boundary of Harrison County to the Wabash River, and Evansville was fixed upon as the county seat.

A range of limestone hills touches the Ohio River immediately below the city, and receding in a north and east direction, overlooks the plain below, and affords a fine view of Evansville, the Ohio River, and the blue hills of Kentucky.

In 1817, General Evans and James W. Jones, Esq., united with Colonel McGary to remodel the town, and to call it Evansville, in honor of General Robert M. Evans. This year a number of lots were sold, and attention was attracted to it as a convenient landing point for Vincennes and other towns on the Wabash.

In 1818, Vanderburgh County was formed from part of Warrick, and named in honor of Judge Vanderburgh, one of the territorial judges and early settlers of Indiana. In the same year commissioners were appointed by the Legislature to fix the permanent seat of justice of Vanderburgh County, who reported in March, to the County Commissioners, "that in consideration of the local advantages of Evansville, and of a liberal donation by the proprietors, of one hundred lots and $500 in cash or such materials as will suit in the erection of the public buildings, they have established and fixed the permanent seat of justice of Vanderburgh County at Evansville."

The town must have progressed rapidly, for in one year from the establishment of Evansville as the county seat, it became an incorporated town, by the election of Hugh McGary, Isaac Fairchild, Everton Kinnerly, Alfred Warner, and Francis G. Bentley, trustees; Hugh McGary was chosen president, and Elisha Harrison, secretary and lister of taxable property. John Conner was treasurer, and William Putnam collector and marshal. The first levy was twenty cents on the one hundred dollars of "real property," and a specified tax on several kinds of personal property. Among the enumerated articles, "on each bound servant of color, sixty cents." The value of "taxable property" is not given on the record, but the total of the tax duplicate amounted to $191 28¾.

In 1820, John W. Dunham, Daniel F. Goldsmith, Presley Pritchet, Wm. Mills, Jr., and John G. Chandler, were elected trustees. John M. Dunham was chosen president, James A. Boiss was appointed secretary, and Alonzo Warner, treasurer. From 1822 to 1828 but very little progress was made. In looking over the "corporate records" we find it struggling for a mere existence. The tax duplicate increased but little, and the delinquent list was large in proportion to the amount. The principal items of outlay was for protecting the river bank and draining low grounds. From 1828 onward there seemed to be some progress. The interior had become more inhabited, and produce found its way to market in flat boats from the Wabash and White Rivers and their tributaries. The convenient proximity of Evansville to those interior water courses made it a favorite landing point for returning boatmen. During the spring and early summer months, thousands of boatmen would land and wend their way homeward, as best they could, with the hard-earned wages of their "trip" or the "proceeds" of their "loads of produce," some on foot, some in wagons, some in "hacks." In fact, every mode and manner of conveyance would be in requisition, on the landing of a favorite steamer, with her decks crowded with hardy boatmen returning to their homes on the Wabash and White Rivers. Thus Evansville became known and appreciated by the interior as the "Landing for the Wabash."

In 1834, on the establishment of the State Bank, Evansville was assigned a branch. This gave an impetus to business.

In 1835–36, on the passage of the internal improvement bill, it was made the southern terminus of the Central and Wabash and Erie Canal. The Central Canal was intended to pass from Muncietown, through Indianapolis, to Point Commerce, where it would be united with the Wabash and Erie Canal, and, united, form the southern division of that great work. This placed Evansville at the outlet of two of the richest valleys in the world. This gave life, vigor, and high hopes of the future. In the projection of these stupendous works of internal improvement, the lines on the main were well selected, and had the men of that day been as well acquainted with the usefulness of railways as they are now, no canals would have been built, and the system would not have been such a complete failure. If, instead of canals, two corresponding railroads had been projected, they would ere this have been both completed, and Evansville would have had double its present population. But the completion of these lines of railroads is only a question of time. One is now completed to Terre Haute, and will, no doubt, be extended to the Wabash Valley Road. The other, following the valley of White River to Indianapolis, has been begun, and will ultimately be made, when the times

and people are propitious. The "crisis" of 1837–38 was felt all over the country. Evansville felt its effects severely. Property, in 1836, had run up to the fancy rates of northwestern cities. In 1840, the bubble had collapsed, and much of the property of Evansville passed into the hands of eastern men, in payment of bad debts, and until 1845–46 had hardly any value, and the population was stationary, if not receding. About this time, however, business generally began to improve. A grant of land had been obtained to extend the Wabash and Erie Canal to Terre Haute, and subsequently another grant was obtained to aid in the construction of this work to the Ohio River at Evansville. This grant of land was made the basis of an arrangement by the State with her bondholders for a sale of the Wabash and Erie Canal, and a resumption of payment of State interest. The completion of the canal then became a fixed fact, and the town again took a new start. A city charter was obtained in 1847, and in 1850, the population had increased to about 5,000—in 1857, to 12,250, with a steady increase.

The geographical and geological location of Evansville is extremely favorable to a large commercial and manufacturing city. Situated about equi-distant from the Falls of the Ohio and the mouth of that river, (about 200 miles each way,) it has no near rival to compete with, nor no large city near to overshadow its growth, but is surrounded by all the elements to support population and create wealth.

The soil of the surrounding country, both in Indiana and Kentucky, is of unsurpassed fertility. The mineral wealth is not less than the fertility of the soil. Coal and iron ore underlay the whole country, and "crops out" in every direction convenient to the city. At Adria, on Green River, sixty miles by water, is established one of the largest iron works in Kentucky. Near Bloomfield, on the Wabash and Erie Canal, is "Richland Furnace," the largest iron works in Indiana, and surrounded by the largest deposits of iron ore in the State. The Wabash and Erie Canal, and slack-water navigation of Green River, afford a cheap and certain transportation of these materials of wealth to the manufactories of Evansville. Coal is found all along the Ohio from Cannelton to Tradewater, and all along the Wabash and Erie Canal from Evansville to Worthington, and on Green River from its mouth to its fountain head. With this abundance of iron and coal, and so conveniently situated to the cotton fields of Northern Alabama and Western Tennessee, being only one hundred and fifty miles from the mouth of the Tennessee River, and with an energetic and industrious population of thirteen thousand, is it not reasonable to suppose that Evansville will shortly become a large manufacturing city? The advantages of location in a commercial aspect are equally favorable. Green River flows through one of the finest regions of Kentucky, and falls into the Ohio nine miles above the city. The trade from this region is large and will increase, as no place is so well situated to accommodate this trade as Evansville. The Wabash and Erie Canal has its southern terminus at this city, and is said to be the longest canal in the world, (462 miles.) This canal follows the Maumee Valley to Fort Wayne, descends the valley of the Wabash to Terre Haute, then crosses in an easterly direction by the valley of Eel River to the west bank of White River. At Newberry, a large dam is thrown across White River, and the water of that stream is forced into the canal, and conducted across large streams and over dividing ridges to Evansville. The momentum or

current in this canal is considerable, and in its way from Newberry to Evansville affords some very valuable mill power. A more fertile region than is traversed by this canal cannot be found of equal extent on the face of the globe. The canal brings to the city a large and growing commerce. It opens an outlet that will increase as it becomes better known for the products of the South to the Northern lakes. The sugar and molasses of Louisiana, the cotton of Mississippi, Tennessee, and Alabama, and the tobacco of Kentucky could be shipped to advantage to the lake region by this canal.

Neither the "canal packet" nor the swift "floating palace" will satisfy the rapid locomotion of the present, and a city or town without a railroad or telegraph is behind the age. Evansville has kept up with the age of improvement, and is in "connection with the world." The Evansville and Crawfordsville Railroad, completed to Terre Haute, 108 miles, crossing the Ohio and Mississippi Railroad at Vincennes, and connecting with the Terre Haute and Alton, and Terre Haute and Richmond, at Terre Haute, gives a railroad connection in every direction. This road is graded nearly to Rockville, Parke County, and it is the intention of the company, as soon as practicable, to extend the road to Attica or Crawfordsville, giving a through connection with the Wabash Valley Roads to the lakes. This road brings a large commerce to Evansville, especially in the winter and spring months, when shipments are being freely made to the South. The numerous local packets plying from and to the Wabash and Green Rivers, and up and down the Ohio, bring a large local trade, and, when to this is added the millions that are exported and imported from and to New Orleans and other seaboard cities, place Evansville among the commercial cities of the West, and give a cheering prospect for the future. We have the location, the industry, and the energy to make a first-class city. Let our advantages be made known, let us invite capital and enterprise to join us, let us establish a high and honorable standard of mercantile honor, let our practice be always to do right as a principle, as well as for our interest, and Evansville will be to Indiana what Cincinnati is to Ohio, Louisville is to Kentucky, St. Louis is to Missouri, and Chicago is to Illinois.

The trade of Evansville, as well as its population, has increased rapidly since 1850. The population, which was then 3,000, is now 12,500, and the exports of the place are $7,053,216 per annum. The sales of merchandise in a year are given as follows:—

MERCHANDISE SALES.

Groceries	$2,034,629	Books and stationery	$24,000
Dry goods	845,271	Jewelry, watches, & silverware	24,600
Clothing, ready-made and manufactured	198,900	Leather and findings	64,835
Iron and hardware	275,000	Drugs and medicines	78,065
Carriage trimmings and saddlery hardware	60,000	Queensware and glassware	51,000
Boots, shoes, hats, and caps	156,000	Auction and commission sales	65,700
Millinery and variety goods	29,600	Pine lumber and shingles	169,000
		Total sales	$4,076,000

In addition to these branches of business, the committee of the Board of Trade remark as follows:—The wholesale grocery business is the leading branch of trade, and amounts to almost a million and three-quarters. The whole grocery business amounts to upwards of two millions of dol-

lars in the aggregate, and is over one-half of the merchandise sales of the city. The wholesale liquor business is included in our "grocery sales," as many of our largest grocery merchants deal also in liquors, and but few houses deal in liquors exclusively. The retail liquor trade, for some reason, has been overlooked, and no information has been collected from coffee-houses or drinking saloons. Of the aggregate amount of grocery sales about $150,000 is at retail, and divided by dealers whose sales are less than $10,000. About $300,000 is sold by that portion who do a wholesale and retail business combined, and over a million and a half is sold by those dealing exclusively at wholesale. The amount of groceries sold the past year has no doubt been largely diminished in quantity, owing to the high range of prices for sugar and molasses. The partial failure of the Louisiana sugar crop turned the attention of dealers to New York for their supplies of these staples, and no doubt decreased the sales in our city of sugar and molasses, and, as a necessary consequence, of other kinds of groceries.

With the usual supplies of sugar and molasses from the plantations of Louisiana, the grocery trade of Evansville might be very largely increased and extended, from the convenient location of our city as a shipping point, if a sufficient amount of capital, and a corresponding enterprise, were engaged in it. The staple articles of this department of trade are molasses, sugar, and coffee, all of which require cheap transportation to enable the retailer to sell cheaply. The grocery merchants of Evansville should supply the whole Wabash Valley, even to Toledo, by the cheap transportation of the Wabash and Erie Canal, the Wabash River, and the Evansville and Crawfordsville Railroad. The slack-water navigation of Green River, so convenient to our city, enables our merchants to deliver heavy goods to Southern Kentucky at a lower rate than any city on the Ohio River. When aided, as they are, by the excellent and regular Green River packets, this advantage alone should give Evansville the whole Green River grocery trade, as well as every business where freights are a considerable item of cost. The grocery trade of our city has been a very successful one. Our merchants engaged in it have all made money, and if the capital employed in it was doubled, or even quadrupled, with corresponding energy, I have no doubt it would be equally successful. The retail dry goods business of Evansville (which is principally for cash) has not increased in the same ratio with other departments of trade. It is principally confined to the city and vicinity. The railroad and canal have about annihilated the "wagon trade," which in years gone by brought a large and profitable retail business to our city. But in its stead we have a large increase in the wholesale trade. The produce that found its way here in wagons is now collected at the "stations" and "shipping points" on the railroad and canal by country merchants, who find this a good market and convenient shipping place for their produce; and where this produce is sold or changes hands, it is always most convenient to purchase supplies. This is a fixed law of trade, and cannot be long violated if proper facilities are offered to purchasers. The wholesale dry goods business of our city has increased ten fold in a few years. Cheap rents, cheap living, together with the close personal attendance paid by our merchants to their *purchases*, as well as sales, enable them to compete successfully with any Western city. The sales of ready-made clothing are, no doubt, larger than appears in the table, as nearly all our

wholesale dry goods houses keep more or less ready-made clothing. There is also a considerable portion of the ready-made clothing that ought to be classed as "manufactured articles," as some of our largest wholesale dealers in clothing manufacture nearly all they sell. The sales of clothiers have also been classed with "dealers in clothing."

The value of articles manufactured, it appears, bear a large proportion to the sales of merchandise. The figures are as follows:—

VALUE OF MANUFACTURED ARTICLES.

Flour and shipstuffs	$477,000	Edge-tools manufactured	$5,000
Feed and meal	10,000	Blacksmiths, wagon maker, and carriages	65,500
Cabinet ware and chairs	96,000	Lard, oil, candles, and soap	37,000
Stoves and other castings	120,000	Agricultural implements, smut mills, &c	13,400
Steam-engines built and repair'd	165,000	Saddlery and harness	35,200
Steam-boilers manufactured	33,000	Breweries—ale and porter	58,000
Saw mills, sales of their products	62,000	Tanneries—domestic leather	50,835
Planing mills, sash, door, and blind factories	35,000	Mattrass manufactories	14,355
Cooperage	20,000	Printing and book-binding	29,300
Manufactories of tobacco and cigars, (also sales)	43,000	Tinware, and sales of stoves and house-keeping goods	73,000
Stoneware	11,000	Marble and stove manufactories	50,618
Bakers and confectioners	67,000	Sales of brick	35,000
Coppersmiths & sheet-iron manufactories	10,000	Whitesmiths and gunsmiths	12,500
Brass founders	6,000		
Total			1,598,708

Of these figures the Board of Trade report, by M. W. Foster, Esq., remarks as follows:—The manufacturing interest is fast gaining on the commercial, and but few years will be required before it will far exceed it, as a means of creating wealth, and bringing general prosperity to our city. The foundries and machine shops stand at the head of this list. The milling interest produces the largest amount of sales; but the labor in converting wheat into flour leaves a much less margin of creative wealth than converting iron into steam-engines; and, again, there are perhaps as many hands employed, and as many families fed and clothed, by the foundries and machine shops as are employed and fed in selling all the merchandise of our city. Next to the foundries are the furniture and chair factories. Two of them are operated by steam, and give employment to a large number of hands. The sales of furniture are nearly all created wealth; timber costs here but little, and all other materials used are but a tythe of the value that furniture assumes when finished and varnished like a mirror. There is in this business, as also in many others, small manufacturers of the necessaries and comforts of life, laying the foundation on which manufactories are built on a larger scale; these are at work in our midst, and will develop themselves as the capital is acquired by labor and economy. We have a first-class starch factory just commenced operations, that is making very superior starch, and will be able to supply that article at the very lowest rates to the trade. We have a paper mill nearly ready for operation, and if it decreases the exportation of rags and the importation of paper, will not decrease the business wealth of the city. A steam cooper shop will soon be ready for operation, that will aid to supply cooperage for the increasing demand by millers, pork-packers, and distillers. Our ship-yard, which was commenced last year under disadvantageous circumstances, has only turned out one

boat this year, but that one shows what can be done, and having now got fairly under way, we hope that several will be launched by Mr. Tilston next year, and that other yards will be established to convert into magnificent steamers the excellent timber of our hills and valleys, which can be supplied in any quantities by the canal and Green River.

The export trade of Evansville for the present is the most important, and from the nature of the surroundings of the city, situated so favorably in the great Valley of the Mississippi, it must grow to embrace a large mineral interest:—

EXPORTS VIA CANAL, RAILROAD, AND RIVER.

	Quantity.	Value.		Quantity.	Value.
Barley ..... sacks	775	$1,947	Stoneware ..... lbs.	25,896	$5,000
Beans ..... bbls.	912	3,648	Eggs ..... bbls.	5,240	52,400
Corn ..... sacks	101,683	101,683	Dried fruit	1,007	4,100
Dry goods ..... boxes	3,028	575,200	Candles ..... boxes	1,766	11,900
Boots and shoes	5,127	156,000	Cotton yarn ..... bags	1,615	17,160
Oats (59,310 bu.) . sacks	19,770	19,717	Feathers	1,179	24,000
Clover & tim'y seed . bu.	6,382	30,000	Glass & glassware .. bxs.	4,674	16,000
Flax-seed	5,925	5,925	Wrought marble .. tons	10,170	125,000
Wheat (52,699 bu.) sks.	25,699	52,000	Iron	1,194	84,000
Ale and beer ..... bbls.	6,954	42,000	Castings	2,057	120,000
Beef	3,260	40,000	Lard ..... kegs	58,896	443,000
Drugs ..... boxes	2,947	47,500	Leather ..... rolls	1,203	40,000
Flour ..... bbls.	62,228	500,000	Molasses ..... bbls.	4,924	123,100
Fish	1,023	10,000	Nails ..... kegs	7,617	30,468
Lime	10,371	10,000	Queensware ..... crates	324	12,960
Hydraulic cement	1,158	3,000	Gunpowder ..... kegs	1,310	6,550
Oil	444	11,100	Hay ..... bales	2,415	7,000
Pork	49,628	742,420	Rags	5,053	10,000
Salt	58,814	117,628	Saleratus & soda .. kegs	1,024	5,000
Whisky	6,397	63,970	Shot & lead . bgs & bdls.	2,312	5,000
Tar	647	2,400	Soap ..... boxes	1,683	5,000
Vinegar	670	2,000	Sugar ..... bbls.	6,314	150,000
Hardware ..... boxes	1,611	64,000	Leaf tobacco ..... hhds.	9,781	1,500,000
Butter ..... kegs	1,118	6,700	Manuf. tobacco .. boxes	1,962	40,000
Bacon ..... hhds.	10,058	650,000	Wool ..... bags	899	24,000
Pork in bulk ..... pieces	58,428	85,000	Hides and skins ... No.	10,170	105,000
Cheese ..... boxes	3,083	9,000	Fruit ..... boxes	1,039	3,000
Coffee ..... sacks	9,241	184,000	White lead ..... kegs	2,462	6,000
Candy ..... boxes	1,545	9,000	Stoves ..... No.	5,649	56,000
Crackers ..... bbls.	3,126	15,500	Machinery ..... tons	280	22,400
Clocks ..... boxes	215	2,500	Miscel. articles .. pkgs.	24,989	500,040
			Total		$7,053,216

The committee remark upon this trade as follows:—The shipping commission business of Evansville is a large item in our trade, and shows, favorably, the commercial position we occupy. To me it appears evident that we occupy the transit point for a large region of country, abounding in all the commodities of a profitable commerce, and capital alone is needed to convert our position into a large mart of trade. The tobacco alone shipped to New Orleans and New York was last year 10,000 hhds., perhaps more—as shipment are made by flat-boats, and not enumerated on bills of lading—and amounts to about one-fifteenth of the exports from the United States to foreign countries, and the value may be set down at from one-and-a-half to two millions of dollars. It shows that Evansville can command the material to make her one of the largest tobacco markets in the West. If, in a season of such unusual scarcity as

the last year, such a large amount of that article was made to pass through the hands of her shipping merchants, without any effort or special facilities, it calls on all interested in the prosperity of the city to aid liberally efforts now being made to build a first-class tobacco warehouse, as a pioneer towards making Evansville a tobacco market, where the manufacturers of Chicago, Detroit, Toledo, and all Canada West could purchase their supplies, and ship them directly home, either by canal or railroad. The value of the products of hay is another large item of our exports, and shows what Evansville ought to be as a market for that article. Flour is also another heavy article of export. If the productions of our city mills are added to the bills of our shipping merchants, the amount would be largely over 100,000 barrels. I cannot devote the time to illustrate the several articles of export as they deserve, but the tables will enable you to investigate and elucidate the business of the city at your leisure. It shows conclusively that we occupy a position as a shipping point superior to any on the Ohio River, Cincinnati excepted; and, if justice was done us by steamboats in our trade, in making proper manifests of our shipments made from our port to New Orleans, no city, with the exception of St. Louis and Cincinnati, would show as large a freight list on the bulletin-boards of the New Orleans Exchange as Evansville; and, for the purpose of having justice done to our commerce, I would recommend some suitable action be taken by the Board of Trade on that subject, so that shipments made from our port to New Orleans should be so reported on the boats' manifests. Although much care has been taken in getting up the table of exports, it no doubt falls far short of the full amount; several large shippers have been overlooked; shipments by flatboats are not enumerated; large amounts of produce are daily purchased and shipped by transient persons of which we have no account; all these things can be provided against in future reports. The number of steamboats that have received and discharged cargoes at the port of Evansville the last year, ending the 31st of December, was 2,544, as shown by the register of Mr. P. G. O'Riley, our wharf-master. The whole number landing at the wharf was 2,669; and out of the whole number of boats that navigate the river, only 69 passed without landing. This is another illustration of our commercial importance, that out of 2,738 boats which passed up or down the river, 2,669 had business with our city.

Banking is so nearly allied to commerce, and so intimately connected with manufactures, that writers on political economy have, of late, considered them in connection. It will, therefore, not be considered out of place that I should give an outline of the banking business of the city. The State Bank of Indiana was chartered and commenced operations in 1834, and its banking powers ceased on the first of January, 1857, having two years therefrom to wind up its business. Of the branch at Evansville, Samuel Orr is president and G. W. Rathbone cashier. At its organization, John Mitchell, Esq., was chosen president, which position he occupied, with the full confidence of the stockholders and the community, until his death, in 1855, and was succeeded in the presidency by Samuel Orr, Esq., the present incumbent. Mr. John Douglass was chosen cashier by the first board of directors, and continued to serve them faithfully until 1847, when he retired, and was succeeded by Mr. Rathbone in the office of cashier. The affairs of the branch are nearly settled up. The entire capital stock paid in has been returned to the stockholders, and

there is a surplus of about 60 per cent on hand to be divided amongst them. The dividends declared for the last ten years have averaged 12 per cent per annum. All the branches are winding up equally well, or nearly so; and there has been no bank in this or any other country which, during its existence, has enjoyed a higher credit, or been more popular, than the State Bank of Indiana, or which, in its final close, exhibits results so satisfactory as those that have been realized by this time-honored, well-managed, and most valuable State Institution. It has afforded a stable and reliable currency for general use; has given aid to produce and business operations, by loans at reasonable rates of interest; and has accumulated a valuable fund of over a million dollars for common schools. Such have been some of its advantages to the public, and "services to the State."

"The Bank of the State of Indiana" succeeds the "State Bank." The charter of this bank is very similar to the "old State Bank," and runs for twenty years from the 1st of January, 1857. The authorized capital is $6,000,000, to be distributed in the various branches. It has twenty branches. The paid up capital is, at this date, $2,300,000. The branch at Evansville was organized in March, 1857, and commenced business in June following, with a paid up capital of $100,000. It has the privilege of increasing to $400,000, and it is the intention of the stockholders to increase it to $200,000 during the coming spring. George W. Rathbone is president and Samuel Bayard is cashier. Both these gentlemen were officers in the old branch. G. W. Rathbone, Robert Parrett, W. R. Preston, George Foster, Wm. Heilman, Wm. Hubbell, R. R. Roberts, are directors.

The Evansville Insurance Company was organized in 1850, with a charter combining insurance and banking privileges of a liberal character. It has a subscribed capital of $250,000, of which $150,000 is paid up in cash, the balance secured by mortgage, and the dividends, or earnings, carried annually to the capital. The banking business has been conducted under the Free Banking Laws, as the Canal Bank of Evansville, but it is the intention of the board of directors to withdraw the circulation, and wind up the business of the Canal Bank, and to use the capital of the company in legitimate banking, without a circulation to protect, by the deposit of bonds for its security, and the retention of coin for the redemption of its notes, as they are rapidly returned by money dealers. The cash capital of the company will be then actively employed in affording that accommodation to the trade and business of the city, in loans and dealing in exchange, that will extend its usefulness and increase its profits.

The Crescent City Bank of Evansville was organized in 1853, under the General Banking Law, and has a paid up capital of $75,000; has been well managed; has done a good and legitimate banking business; and like the other banks of our city has always redeemed its notes with coin; but the onerous redemptions which it, like our other banks, has been subjected to of late by "assorters of currency," have determined the directors to withdraw the circulation, and convert the bonds on which their circulation is based, and to do a banking business on the paid up capital, without having to keep so large a portion of their means in readiness to meet a circulation so rapidly returning for redemption.

In addition to the Evansville Insurance Company, there are several agencies of foreign companies doing an insurance business.

The commercial crisis has passed over without much affecting Evansville, since there was but little speculative action in that section. The regular business of the locality was steadily growing under its natural advantages and the general prosperity of the whole country. There is no doubt but the vast manufacturing facilities which Evansville possesses will, as the great valley fills with inhabitants, make that a leading point for the supply of merchandise. All the raw materials for textile fabrics, as well as the coal and iron in such juxtaposition as make the cost of production small, points not only to success in supplying the neighborhood, but in exports; since cotton manufactured so near its place of growth must rival that which has been transported a distance.

Art. IV.—WEIGHTS AND MEASURES.

INCREASE OF COMMERCIAL RELATIONS—DIVERSITY OF STANDARDS—DIFFICULTIES ARISING FROM IT—ATTEMPTS AT UNIFORMITY—EARLY INTRODUCTION OF MEASURES—THE ARK—DERIVATION OF MEASURES—HEBREW SYSTEM—ENGLISH SYSTEM—GRAINS—STONE—HAND AND FOOT—FRENCH ELL—ANGLO-SAXON LAW—MAGNA CHARTA—STANDARDS KEPT BY SPEAKERS OF HOUSE OF COMMONS—IMPORTANCE OF UNIFORMITY—THREE STANDARDS—WEIGHT, LENGTH, CAPACITY—COMPLICATION OF ARITHMETIC—DIVERS MODES OF REDUCTION—LOCAL WEIGHT—BUSHEL—ACRE—STONE—NECESSITY OF AN INTERNATIONAL SYSTEM—ELEMENTS REQUIRED—UNIT OF LENGTH—DIAMETER OF THE EARTH—FRENCH MODE OF ESTABLISHING THE UNIT—PROGRESS OF THE METRICAL SYSTEM.

The increasing commercial relations which are tending to gather almost daily in closer ties, not only the several nations of the earth, but the different parts of old settled countries, bring out in bolder relief the immense difficulties that beset the transactions of life through diversity in weights, measures, and money. A large proportion of the difficulties which beset the study of arithmetic, and which disgust the student and repel inquirers, arise from the endless and senseless differences in the manner of arriving at the same object. Probably the most simple thing in the world is money, or a certain weight of gold or silver to be given for a certain weight or measure of wheat; yet, so complicated has that transaction been made by different laws, customs, and traditions, that it becomes a most difficult thing to comprehend. The new cyclopedia, published by the Messrs. Harper, contains thirteen closely-printed royal octavo pages, merely to enumerate the names of weights and measures used in the leading commercial countries. The whole of these could, by a little uniformity of action, be reduced to a few lines, readily comprehended by the most obtuse intellect. There has been, of late years, some progress made towards this reform in several countries of Europe, but nothing as yet towards an international system. Efforts are being made, however, to approximate to it, and success can only be ultimately attained by discussion. Before the Chamber of Commerce of Belfast, Ireland, J. P. Porter, Esq., delivered an address upon the subject. It contains so much information in relation to local usages, that we transcribe a portion of it:—

The introduction of weights and measures is coeval with the dawn of civilization—society may exist without them, but not civilized society. The Laplanders, the Bushmen, the Esquimeaux, the red Indians, have

neither weights nor measures; but the business of a city could not go on for a week without them. Hence we find mention of them at a very early period in the world's history. The dimensions of the ark were given to Noah in cubits, and Abraham weighed to Ephron, the Hittite, the silver which was the price of the field and cave of Macphela in shekels. The *ammah*, like the Latin word *cubitus*, (a cubit,) by which it is translated, signifies the fore-arm, from the elbow downwards to the point of the fingers—"the cubit of a man," as it is called in Deut. iii., 11. The *shekel*, like our own English pound, (from *pondus*,) denotes, etymologically, "a weight;" but among the Hebrews the "shequel of the sanctuary" was defined to be of the weight of twenty gerahs, Exod. xxx., 13; Num. iii., 47; Ezek. xlv., 12,) that is, of twenty beans—for so the word *gerah* literally signifies. Let us not despise these rude attempts to fix a common and natural standard of measures and weights. Our own system was originally formed on the very same principle. Silver among ourselves is sold by the ounce, consisting of 480 grains; and the grain was at first what its name implies, a pickle of dried corn, taken from the middle of the ear. More bulky commodities are often sold by the stone—a term which explains itself, and bespeaks the rudeness of primeval times. In measures of length we have the barley-corn, now never used, except in works of arithmetic, in which it is preserved for the sole purpose, as it would seem, of presenting an additional puzzle to the hapless children who are condemned to drudge at our dreary and unaccountable system of counting; we have the hand and foot, taken, of course, from the corresponding parts of the human form; we have the yard, anciently termed the ell, (*ulna*,) that is to say, the arm. The word ell is no longer used to signify the arm in common speech, but it is retained in the compound el-bow, which means the bow or bend of the arm. And the depths of the ocean are sounded in fathoms, that is to say, the expanse of the outstretched arms. These are very rough standards of comparison—they fluctuate in size and bulk—in fact, they are seldom exactly equivalent in any two individuals; their employment for the purposes of trade would open a door to continual fraud, and give rise to perpetual bickerings, which it is the very object of a system of weights and measures to prevent. Accordingly, means were early taken to reduce them to some definitely ascertained magnitude, which should be general, at least for each neighborhood. At first, the plans employed for this purpose were almost as rude as the errors which they were designed to correct. In France, for example, every province under the old monarchy had its own system of measures for length, surfaces, and capacities, quite independent of all the rest of the kingdom. Sometimes these standards, thus differing from each other, went by different names in the different provinces, which occasioned considerable inconvenience to traders; sometimes the standards used in different provinces, and differing from each other in magnitude, passed by the same name, which led to still greater perplexity. In two, at least, of the largest and most populous provinces of France, it was the custom, which had the force of law, that the standard of length in each seigneurie, or manor, should be the arm of the seigneur for the time being. In these districts the death of a short seigneur, if succeeded by a son six feet in height, and with an arm proportioned to his height, would ruin half the traders, and make the fortunes of the remainder. All this has now been rectified; and there is no country in the world that,

at present, enjoys the benefit of a system of weights and measures more philosophical in its conception, more elegant in the relation of its different members, or more convenient in its application to all the purposes of civilized man, than that now employed in the French empire.

In England, the necessity of a fixed and uniform standard was felt and acknowledged at a very early period. In the Anglo-Saxon times, so early as the reign of King Edgar, about a hundred years before the Norman conquest, a law was made requiring that a set of weights and measures should be kept at Winchester, then the capital of the kingdom, by which those employed in other places should be regulated. The troublesome and distracted state of the nation in after times probably occasioned this law to be neglected. At all events, great irregularities existed, and were complained of in the time of King Henry I., the son of the Conqueror, at least as regarded the unit of length. To obviate them he made a law that the length of his own right arm should be the standard yard for his dominions. This provision also failed to produce the needful uniformity. In Magna Charta, which was signed in the reign of Henry's great-grandson, King John, it was stipulated by the 41st section that there should be only one weight and one measure throughout the whole realm. In later times it was enacted by Parliament that a standard yard, a standard pound troy, and a standard gallon—all made of brass, under the direction of commissioners appointed for the purpose—should be kept in the custody of the Speaker of the House of Commons; that compared copies of them should be lodged in several important towns; and that all legal weights and measures should be conformed to them. The originals were lost by the fire which consumed the old House of Commons, in the autumn of 1834; but the certified copies, which had been made with as much care and accuracy as the standards themselves, still exist: and, so far as these three magnitudes are concerned, no one has ever heard a complaint of any want of uniformity throughout the United Kingdom. But there are, nevertheless, evils and imperfections in the existing system of measures which loudly call for a remedy, and to which it seems strange, and almost inconceivable, that the commercial community of Great Britain and Ireland should have submitted even for a single year. Some of these we shall now endeavor to point out.

In the first place, it is to be remarked that three important portions of the system are quite independent of each other—we allude to the measures of weight, length, and capacity. The pound has nothing to do with the yard, nor the yard to the imperial gallon. There are thus three distinct and separate standards; whereas, if a more rational method had been followed, one would have been sufficient, from which all the rest could easily have been derived. Secondly, all these standards are purely artificial and arbitrary; there is nothing in nature that corresponds to any one of them, or from which they can in any simple or elegant manner be derived. No one man can give to another, by intelligible words, an exact idea of the length of a yard or the weight of a pound, otherwise than by placing specimens of these quantities before him. Hence, if our present weights and measures were lost, they could not possibly be recovered; nor could future ages have any notion of quantities expressed in terms derived from our existing standards. Thirdly, the divisions of our scale, or rather of our manifold scales, are arbitrary, capricious, perplexing, and in most cases inconvenient, to a degree that foreigners, accustomed to a simple and

elegant system, find it difficult to comprehend. This is the circumstance which makes the study of commercial arithmetic so difficult and disgusting. There are very few pupils who can learn arithmetic tolerably well in less than three years; in most cases in requires four to master it, even under an able teacher and with the best existing text-books; whereas, if a proper division of our money, weights, and measures were introduced, we affirm, without hesitation, that all the knowledge in arithmetic could easily be acquired in a twelve-month, and when so acquired could never be forgotten. This may be illustrated by a specimen of the sub-division of some of the larger units of the scale, showing the multipliers which are to be used in bringing them to a lower denomination, as it is called; of course, in bringing lower to higher denominations, the multipliers become divisors in inverted order.

In reducing an English mile to its sub-divisions, the multipliers are 8, 40, 7, 3, 12, and 3. In reducing a ton, the multipliers are 20, 4, 28, and 16; for another sort of a ton, the multipliers are 20, 4, 30, and 16; for another sort of ton, 21, 4, 28. In reducing a yard, a carpenter uses as multipliers, 3, 12, and 8; but a draper, 4 and 4. A grocer, in bringing his pound to a lower denomination, uses as multipliers, 16 and 16; a goldsmith reduces his pound by 20 and 24; and an apothecary his by 8 and 30. Moreover, these pounds, and the ounces of which they consist, are of different weights; the goldsmith's pound is lighter than the grocer's, but his ounce is heavier; and not one person in ten thousand knows the exact proportion between them. In the measure of surfaces, the statute acre is successively reduced to its lower denominations by the multipliers 4, 40, 30¼; the perch by 30¼, 9, and 144. To take one out of many of the ways of calculating capacity, we may select the authorized division of the quarter of corn. It is to be reduced into its lower component parts by multiplying by 8, 4, 2, 4, 2, and 4. And as to the divisions of the bushel and the gallon, they are still more perplexing. It is not easy to remember these things; but consider how difficult it is to work them out; and consider that accounts and calculations involving accuracy in all these details, and their comparison with one another, are required perhaps a hundred times a day in 10,000 counting houses in the United Kingdom, and you will understand the impediment thrown in the way of trade and manufactures. There is not a house painter or a plasterer in a score that can measure his own work, or can tell, without the help of a professional measurer, how much an employer, who has contracted with him at so much by the square yard, is in his debt; in France, any child who can perform simple multiplication can do it with ease. With us, it is still more difficult for a stonemason, who is paid by what is called a solid perch, (which, however, is not a solid perch at all,) to tell the amount of his own earnings; but if we had the French system, the calculation would be as easy as the former. Fourthly, while the units of length, weight, and capacity are fixed by law, so many local customs prevail as to the multiples and sub-multiples of the scale, that it is very difficult from a price current list to ascertain the comparative value of the same commodities at various places in our own nation. Suppose, for example, that a farmer has got a quantity of wheat on hand which he is anxious to dispose of to the best advantage, and he looks over the prices current in all the newspapers he can find in the Commercial News-room. In one town it is quoted at so much per cwt.; in another, at per barrel; in

another, at per quarter; in another, at per load; in another, at per bag; in another, at per weight; in another, at per boll; in another, at per coomb; in another, at per hobbet; in another, at per winch; in another, at per windle; in another, at per stike; in another, at per measure; in another, at per stone! Thus there are fourteen different denominations to be compared with each other before the farmer can discover what is the average value of his wheat, or what is the most desirable market for the sale or the purchase of it. But all this, though puzzling enough, would be plain sailing, comparatively, if the same name signified the same weight and quantity in all places, or even at the same place; but it does not. It would be strange, indeed, if it did, in a system where everything appears to be done that can be done to bewilder and mislead. A table published by the International Association, showing the different weights and measures in use in different localities in the United Kingdom, sites as follows in relation to the manner of selling wheat. At Hertford it is sold by the load, which is equal to 5 bushels; at Hitchin, by the load of "about 5 bushels;" at Bedford, by the load of 3 bushels; at Dorkin, by the load of 5 quarters; at Bishop's Stortford, by the load of 40 bushels! Thus there are five distinct nominal values given for the one denomination—the load—expressed as so many quarters or so many bushels. What, then, is the amount of a quarter? Why, in general, it is equal to eight bushels by measure; but in London it is a weight of 480 pounds. In like manner the bushel is in many places not a measure but a weight; and in different places it signifies different weights. The following is the value in various towns and places in England:—168 lbs., 73½ lbs., 62 lbs., 80 lbs., 75 lbs., 72 lbs., 60 lbs., 70 lbs., 65 lbs., 63 lbs., 64 lbs., 5 quarters, 144 quarts, and 488 lbs.! In the highly enlightened and commercial town of Manchester, a bushel of English wheat is 60 lbs., but a bushel of American wheat is 70 lbs.! Here we have the bushel fluctuating from 5 quarters to the eighth part of a quarter, being a variation of 4,000 per cent on the smaller quantity; and the quarter itself is an unsettled quantity; where its value is given in pounds weight, it varies from 60 lbs. to 488 lbs. So a bag is, at Bridgenorth, 11 scores, whatever may be meant by a score, (I suppose it means 20 lbs.;) in an adjoining town, the bag is 11 scores and 41 lbs.; in another place it is 12 scores; in another, 12 score 10 lbs.; in another, 2 bushels; but which of the many bushels is intended, the return saith not. In like manner, a weight is 14 stone, 36 stone, 40 stone. It is useless so follow this line of illustration farther. it may, however, be remarked, that similar variations exist in the system of linen measure, of land measure, of the weights and measures of oats, of barley, of butter, of potatoes, of coals, of wool, and of flax, and in fact, of almost every article that is in common use among us. Even in the same town, the same name does not express the same quantity. In Belfast, a stone of oats is 14 lbs.; a stone of flax is 16¼ lbs. A stone elsewhere means 8 lbs., 14 lbs., 16 lbs., 18 lbs., or 24 lbs., according to circumstances. If we mistake not, flax is sold in Downpatrick by the stone of 24 lbs. Can any man tell without hesitation or circumlocution, what is meant by an acre? There are few who know the answer to that simple question. It means seven different quantities of land, varying from the Cornish acre of 4,840 square yards to the Cheshire acre of 10,240, which is nearly half as large again as the Irish plantation acre of 7,840 square yards. In short, if a committee of the most skillful philosophers had set

themselves to the task of devising a system of weights and measures that should most effectually hinder or render as difficult as possible the transaction of the common business of commercial and agricultural life, they could scarcely have hit upon any that would have answered the purpose more effectually than that which exists, and is clung to with persevering tenacity in this agricultural, manufacturing, and commercial nation! I believe it is by far the worst that is to be found in the whole world. And this leads me to the fifth and last objection that I shall urge against our present system—it is not and never can by possibility become international; that is to say, no other country ever has adopted it, or ever will adopt it, unless its inhabitants be a race of idiots, with whom it will be difficult to carry on trade. By adhering to our present system, or want of system—for there is really nothing systematic in it—we are isolating ourselves from the general community of trading nations, and rendering as inconvenient and difficult as possible that commercial intercourse, which is one of the main sources of the greatness of the British Empire.

We apprehend that no human being, at least no rational man, will maintain that the irregularities, inconsistencies, and absurdities, a part—but only a part—of which have been detailed, should remain as they are. Common sense cries out against it. They must be put down, and will be. Even the stupid and abortive attempts at a remedy which were before Parliament last session, show that a remedy is demanded by the public voice. But how is it to be applied. Two courses are open to us. We may adopt what is regarded as the most generally accepted part of the existing weights and measures, abolishing by law what are considered mere local deviations or casual irregularities. Or we may discard all concern about the existing system, and adopt by law the best system that can be found or invented.

Throwing aside, as incapable of being made good, (though undoubtedly it might be rendered less bad,) our present confused and inconvenient system, let us consider what are the essential qualities of a good and philosophical system to be introduced in its room. And it strikes me that the following particulars embrace all that can be desired:—

1. It should have its basis in nature, and that basis should be of such a kind as not to be limited to one nation or tribe of the human family, but common to all mankind.

2. From the basis the other portions should be deduced by a simple and intelligible process, so that all should have a mutual relation, connection, and dependence; and these portions should embrace measures of length, of superficial area, of solid capacity, and of weight.

3. In each of these departments the multiples and sub-multiples of the primary unit should proceed decimally; that is, the larger divisions should increase upwards by tens, and the smaller decrease downwards by tenths. This would put an end to all such rules as compound addition, compound substraction, multiplication, reduction, and fractions. Every arithmetical calculation would be performed by the rules applicable to whole numbers; and, in fact, one-half of the processes which now involve long and troublesome computations would be solved by inspection merely, without the use of pencil or pen.

4. Which, indeed, is implied in the three preceding conditions, it should, if possible, be such that we may expect sooner or later the adoption of the same system by all civilized nations.

Now, a moment's consideration will satisfy us that the first thing to be determined is the unit of length, for from it the measures of surfaces, of capacity, and of weight, can easily be deduced. And according to the first of the conditions above stated, we must look for a unit that has its basis in nature, and is not peculiar to one locality, or to one tribe of mankind. Various standards of this sort have been suggested. In the year 1679, Locke suggested the third part of a pendulum vibrating seconds as the unit of linear measure; but pendulums require to be made of different lengths to vibrate seconds at different points on the earth's surface, and it is a matter of great difficulty to determine the exact length of the seconds' pendulum either at the equator or any particular latitude. Although this proposal has been before the world for nearly 200 years, no one pendulum has ever yet been mentioned as beating time with such accuracy that it would be right to adopt it as a standard of length. A similar objection applies to another suggestion, which is, that we should employ, as the origin of our linear system, the space through which a heavy body falls, *in vacuo*, in a second of time. It is evident that this suggestion involves all the difficulties connected with the pendulum, and some others besides. It is difficult to procure a perfect vacuum; it is not easy to determine the space described by the falling body by observation merely; the space is known approximately by calculations founded on the length of the pendulum itself; and here, still more than in the case of the pendulum, the varying force of gravity at different latitudes would give units of varying length at different points. The only proposal that remains for discussion, and which it is needful to consider, is that for taking as the unit of linear measure some definite portion of the dimensions of the earth itself. It is confessedly difficult to make any exact measurement of the earth itself, or of any required portion of its surface, but the thing can be done with a very close approximation to correctness; and when this has been accomplished with as great accuracy as can be attained, the sub-division of any one of the great magnitudes thus reached will give a unit of length as accurate as can reasonably be desired. Most persons are aware that there is no such thing as a perfectly exact measurement of any one object in the universe. All that we can do is to reduce the amount of error within the narrowest possible limits, and this is most easily effected by the sub-division of the dimensions of a very large body, which has itself been measured with the utmost possible correctness. Now, the earth itself is the largest body that we can touch; the magnitudes and distances of the heavenly bodies, though in many cases much larger than the earth, are determined primarily from the dimensions of our planet. Accordingly it has been proposed to deduce our standard of length either from the dimensions of the earth's polar diameter or from the extent of its surface, measured or computed, from pole to pole, in a direct line. The latter is assuredly preferable, because from it the diameter of the earth is calculated, and in such cases it is better to employ the original than the derivative magnitude. The French government deserve the credit of having first put this suggestion into practice. An arc of the meridian, extending from Dunkirk, in France, to the seashore, near Caledonia, in Spain, was measured, with the utmost care, by Messieurs Méchain and Delambre; and from this, combined with the measurements of Maupertuis and Condamine, previously extended with a view to determine the shape of the earth, (its spericity, as it is called,)

was deduced the length of an arc extending from the north pole to the equator. The $\frac{1}{10000000}$th part of this arc was denominated the metre; a bar of platinum was constructed representing this length as accurately as possible, and this bar—or others directly or indirectly copied from it—is the standard unit of length throughout France, and in many other countries which have herein followed her example. It is equal to $39\frac{7}{8}$ inches of our English measure, and is about one-quarter inch longer than a pendulum vibrating seconds at the level of the sea in London. The metre is divided decimally downwards into decimetres, centimetres, and millimetres; and multiplied decimally upwards into decametres, hectometres, kilometres, and myriametres—the latter being, as is implied by its name, equal to 10,000 metres of the scale. The metre and its sub-divisions can easily be adapted to the purposes of drapers, carpenters, architects, &c.

A square formed upon a line of ten metres in length, is the unit of superficial or land measure; and a cubic which has a decimetre (or $\frac{1}{10}$th of a metre) for its measuring line, is called a litre—the unit of capacity. Each of these is increased or diminished by multiples or sub-multiples of ten, but, for the convenience of those who prefer halves and quarters to tenths, each may be, and often is, divided in this manner, though all arithmetical calculations are performed decimally. For the unit of weight a kilogramme is used, which is the weight of a litre of distilled water at its greatest density, which is a little above the freezing point. A kilogramme is rather more than two pounds English of avoirdupois weight. It needs not to specify the names of all the divisions and sub-divisions, because the nomenclature is a mere adjunct of the system, and a very unhappy one. The introduction of these hard foreign names must have thrown many impediments in the way of the reception of the metrical system in the rural districts, and even in the towns of France.

The metrical system has been, since 1840, the sole standard employed in France. It is also established in Belgium, in Holland, in Sardinia, in Lombardy, in Greece, and in Spain; in Portugal it is to come into operation in 1862, and it is partially sanctioned by law in Switzerland, Baden, and Hesse-Darmstadt. In South America it has advanced with rapid strides. Chili, Colombia, New Granada, Equador, and Brazil, have already adopted it by law. Including the colonies of France and Spain, it is now sanctioned in almost every Christian State or nation (except the United States of America) with which Great Britain has any considerable foreign trade; and if Great Britain were for once to pursue her own interest, and the interest of mankind conjoined, there can be no doubt that the nations which still hesitate would speedily follow her example; so that this elegant and harmonious system would form a new link in the great chain which holds together all the tribes of civilized men on the face of the earth, facilitating their intercourse, and knitting them together by means of their mutual wants and reciprocal benefits.

Art. V.—FACTS REGARDING GOLD.

LOCALITY OF GOLD MINES—COLOR OF GOLD—FIRST MENTION OF—RELATIVE VALUE TO SILVER, B. C.—CHANGE IN RELATIVE VALUE—BIBLE MENTION—METALS IN EARLY GREECE—COINS—DARIC—MINES OF THRACE—GOLD AT ROME—VALUE OF A CUBIC INCH—GOLD NOW IN THE WORLD—RUSSIAN MINES—AMERICAN—AUSTRALIAN—ANNUAL PRODUCT—QUANTITY OF GOLD AT VARIOUS PERIODS—COINAGE OF UNITED STATES, FRANCE, GREAT BRITAIN, AND RUSSIA—WEAR AND TEAR—GOLD COINS FIRST ISSUED IN ENGLAND—UNITED STATES COMMISSION.

GOLD, next to iron, is the most widely diffused metal upon the surface of our globe. It occurs in granite, the oldest rock known to us, and in all the rocks derived from it; it is also found in the vein stones which traverse other geological formations, but has never been found in any secondary formation. It is, however, much more common in the alluvial grounds than among the primitive and pyrogenous rocks. It is found disseminated under the form of spangles in the silicious, argillaceous, and ferruginous sands of certain plains and rivers, especially in their junction, at the season of low water, and after storms and temporary floods. It is the only metal of a yellow color; is readily crystalizable, and always assumes one or other of the symmetrical shapes, such as the cube, or regular octahedron. It affords a resplendent polish, and may be exposed to the atmosphere for any length of time without suffering change; it is remarkable for its beauty; is nineteen times heavier than water, and, next to platinum, the heaviest known substance; its malleability is such, that an ounce will cover two hundred square feet; its ductility is such, that a lump of the value of four hundred dollars could be drawn into a wire which would extend around the globe. It is first mentioned in Gen. ii., 7. It was found in the country of Havilah, where the rivers Euphrates and Tigris unite and discharge their waters into the Persian Gulf. The whole quantity of gold which has been extracted from the surface and bowels of the earth, from the earliest times to the present day, is estimated to be nine thousand millions of dollars.

The relative value of gold to silver, in the days of the patriarch Abraham, was one to eight; at the period of B. C. 1000, it was one to twelve; B. C. 500, it was one to thirteen; at the commencement of the Christian Era, it was one to nine; A. D. 500, it was one to eighteen; A. D. 1100, it was one to eight; A. D. 1400, it was one to eleven; A. D. 1613, it was one to thirteen; A. D. 1700, it was one to fifteen-and-a-half; which latter ratio, with but slight variation, it has maintained to the present day.

Gold was considered bullion in Palestine for a long period after silver had been current as money. The first mention of gold money in the Bible is in David's reign, (B. C. 1056,) when that king is said to have bought the threshing floor of Ornan for six hundred shekels of gold by weight. In the early period of Grecian history the quantity of the precious metals increased but slowly; the circulating medium did not increase in proportion with the quantity of bullion. In the days of early Greece, the precious metals existed in great abundance in the Levant. Cabul and Little Thibet (B. C. 500) were abundant in gold. It seems to be a well ascertained fact that it was obtained near the surface; so that countries which formerly yielded the metal in great abundance are now entirely destitute of it. Crœsus (B. C. 560) coined the golden *stater*, which contained one hundred and thirty-three grains of pure metal. Darius, son

of Hystaspes, (B. C. 538,) coined *darics*, containing one hundred and twenty-four grains of pure gold, which were preferred, for several ages, throughout the East for their fineness. Next to the *darics*, were some of the reigns of the tyrants of Sicily; of Gelo, (B. C. 491,) of Hiero, (B. C. 478,) and of Dionysius, (B. C. 404;) specimens of the two former are still preserved in modern cabinets. Darics are supposed to be mentioned in the latter books of the Old Testament under the name of *drams*. Very few specimens of the *daric* have come down to us; their scarcity may be accounted for by the fact that, after the conquest of Persia, they were melted down, under the type of Alexander. Gold coin was by no means plenty in Greece, until Philip of Macedon had put the mines of Thrace in full operation, about B. C. 360. Gold was also obtained by the Greeks from Asia Minor, the adjacent islands, which possessed it in abundance, and from India, Arabia, Armenia, Colchis, and Troas. It was found mixed with the sands of the Pactolus and other rivers. There are only about a dozen Greek gold coins in existence, three of which are in the British Museum, and of the latter two are *staters* of the weight of one hundred and twenty-nine grains each. About B. C. 207, gold coins were first struck off at Rome, and was denominated *aurei*, four specimens of which are in the institution before alluded to. Their weight was one hundred and twenty-one grains.

A cubic inch of gold is worth (at £3 17s. 10½d. or $18 69 per ounce) one hundred and forty-six dollars; a cubic foot, two hundred and fifty-two thousand two hundred and eighty-eight dollars; a cubic yard, six millions eight hundred and eleven thousand seven hundred and seventy-six dollars. The quantity of gold now in existence in the world is estimated to be three thousand millions of dollars, which, welded into one mass, could be contained in a cube of eleven feet.

The Russian gold mines extend over one-third of the circumference of the globe, upon the parallel of 55° of north latitude. Those of North America extend from 34° to 42° of north latitude, upon the Pacific coast. Those of Australia extend from 34° to 37° of south latitude. The Russian mines were discovered in 1809, the Californian in April, 1848, and the Australian in February, 1851. The finest gold is obtained at Ballarat, and the largest nugget in the world weighs twenty-two hundred and seventeen ounces, and is valued at forty-one thousand dollars. In shape, it resembles a continent with a peninsula attached by a narrow isthmus.

The annual product of gold at various periods has been estimated as follows:—

A. D. 14	$800,000	A. D. 1800	$15,000,000
500	200,000	1843	31,000,000
1000	80,000	1848	46,000,000
1492	100,000	1851	139,000,000
1600	2,500,000	1858	250,000,000
1700	6,000,000		

The amount of gold in existence at various periods is estimated to be as follows:—

A. D. 14	$427,000,000	A. D. 1800	$1,100,000,000
500	100,000,000	1843	1,750,000,000
1000	40,000,000	1848	1,824,000,000
1492	57,000,000	1851	2,200,000,000
1600	200,000,000	1858	8,000,000,000
1700	400,000,000		

Of the latter amount, twenty-five hundred millions is estimated to be

in gold coin and bullion, and the remainder in watches, jewelry, plate, etc., etc. The product of the California mines since their discovery has amounted to seven hundred and forty-one millions of dollars, and of the Australia to six hundred and forty-three millions.*

Since 1792, the gold coinage of the United States mint has amounted to five hundred and fifty millions of dollars, of which four hundred and sixty-four millions have been issued since 1850. The gold coinage of the French mint, since 1720, has amounted to sixty-one hundred and forty-three millions of francs, of which thirty-one hundred and thirty-two millions have been issued since 1850. The gold coinage of the British mint, since 1603, has amounted to two hundred and fifty-one millions of pounds sterling, of which sixty-one millions have been issued since 1850. The gold coinage of the Russian mint, since 1664, has amounted to four hundred and fifty-three millions of roubles, of which one hundred and eighty millions have been issued since 1850. By experiments made at the United States mint, it has been ascertained that the wear and tear of half-eagles is a tenth of one per cent per annum. Eagles exhibit less, whilst quarter-eagles and dollar pieces exhibit more.

Gold coins were first issued in England in A. D. 1257, in the shape of a penny. Florins were next coined in 1344, of the value of six shillings. The guinea was first issued in 1663, of Guinea gold. In 1733, all the gold coins, angels, testoofs, units, jacobuses, caroluses, etc., etc., were called in and forbidden to circulate. The present sovereign was first issued in 1817.

The following will exhibit the contents, in pure gold, of the gold coins of different countries of the world :—

Sovereign, of England ....grains	112	Ducat, of Austria.....grains	106
New doubloon, of Spain.....	115	Twenty-franc piece, of France ..	90
Half-eagle, of United States.....	116	Half-imperial, of Russia	91
Gold lion, of Netherlands.....	117	Moidore, of Brazil	152
Double ounce, of Sicily	117	Mohur, of India.....	188

A commissioner has been dispatched by the United States government to England, France, and other countries of Europe, to confer with these respective governments upon the expediency of adopting a uniform system of coinage throughout the world, so that the coins of one country may circulate in any other, without the expense of recoinage; a consummation most devoutly to be wished.

The fact that the large amount of gold which has been thrown into the monetary circulation of the world, within the last decade, has exercised so little influence upon the money market or prices generally, is at variance with the predictions of financial writers upon both sides of the Atlantic. The increase in the present production of gold, compared with former periods, is enormous; and it would not be surprising, if, in view of the explorations which are going on in Africa, South America, and countries bordering upon the equator, within the next decade, the product should be a million of dollars *daily*. The price of gold has not diminished, although the supply has increased seven-fold within fifteen years.

* This seems to be a vague estimate of total production. The actual exports from both Australia and California since the discoveries were to the close of 1857—from California, $458,655,280, and from Australia, $320,093,742, or together, $773,749,022; adding $100,000,000 for 1858, gives $610,250,978 less than the estimate of production in those two countries. It is, of course, entirely erroneous.—[*Ed. M. M.*

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STOCK DEALING.

The following is the last opinion Judge Duer wrote. It is of great importance to the business community and the legal profession. It was delivered in the early part of July last:—

Francis H. Salters, respondent, *vs.* Sidney E. Genin, Alfred H. Lockwood, and Le Grand Lockwood, appellants.

DUER, C. J.—*By the Court.*—This case comes before us upon an appeal from a judgment at Special Term in favor of the plaintiff for $1,756, with interest and cost.

The case was tried by the judge who heard it without a jury, but it does not appear that it was so tried by the consent of the parties.

In order that the conclusions to which we have come may be properly understood, it will be necessary to give a brief statement of the pleadings, and of those portions of the findings and decisions of the judge, and of the evidence upon the trial, that have a bearing upon the questions upon which alone our decision will turn.

The complaint alleges that upon the 11th day of January, 1856, the plaintiff gave to defendants, who are partners and stock-brokers, an order to purchase for him two hundred shares of the capital stock of the Accessory Transit Company, and at the same time deposited with them, as a security for his own performance of the contract, thirty-five shares of the stock of the Sixth-avenue Railroad Company, with a power of attorney to transfer the same; that shortly thereafter the defendants delivered to the plaintiff two memoranda, showing that they had purchased on his account from different persons two hundred shares of the stock of the Nicaragua Accessory Transit Company, the stock to which his order related, at twenty-five per cent, but that no such shares were transferred or delivered to the plaintiff; that subsequently the defendants gave him notice that they should sell the said stock, and thereafter delivered to him a memorandum, dated 7th day of April, 1856, showing that they had sold the same, at the price of thirteen-and-three-quarters per cent, but that he (the plaintiff) never transferred or delivered the shares to any person; that on the 11th day of April, 1856, the defendants rendered to the plaintiff an account, of which a copy was annexed, but that no money had been paid to him, nor had the Sixth-avenue Railroad stock ever been delivered to him. In the account so rendered by the defendants, the plaintiff was charged with $5,000, as the price of the Nicaragua stock, with $87 50 as interest thereon, and $50 for commission, and $150 as a commission for negotiating a loan, the sums total being $5,287 50; and he was credited with $2,725 as the proceeds of the sale and commission of the Nicaragua Transit Company, and with $2,957 50 as proceeds of the sale of the Sixth-avenue Railroad Company; the aggregate being $5,632 50, thus leaving and stating $395 as a balance due to the plaintiff.

The complaint then averred that the purchases and sales of the Nicaragua stock in the account rendered were not real but fictitious, and that the commission thereon charged for negotiating a loan was also fictitious, and it closed with a demand of judgment by the plaintiff that the defendants should return and transfer to him the thirty-five shares of stock of the Sixth-avenue Railroad Company, and should pay to him any balance that might be found due to him upon the transactions between them.

The answer of the defendants, Genin and A. Lockwood, admitted that the order for the purchase of the shares of the Accessory Transit Company, as given to the firm of Genin & Lockwood, and the deposit with them of thirty-five shares, as a security, of the Sixth-avenue Railroad Company, and averred that, by an

agreement between the plaintiff and them, the Nicaragua shares were purchased and held by the firm in their own name. It averred that the purchase was in fact made, and the shares purchased so held by them, and that the subsequent sales, both of the Nicaragua and of the Sixth-avenue Railroad Company shares, were authorized and ordered by the plaintiff to be made on his account, and that the account rendered to him was in all respects correct. The defendant, Le Grand Lockwood, answered separately, and denied all the allegations in the complaint.

What are the issues, and, in our judgment, the only issues, raised by these pleadings, we shall hereafter state.

It was clearly proved upon the trial that the two hundred shares of Nicaragua stock were purchased by the defendants at the time, and for the price mentioned in the account which they rendered, and that they advanced the funds for that purpose. That they caused the stock, by which, it seems, is meant that they provided funds or credit for its payment for the period of ninety days from the date of the purchase, and that by so doing the credit which it was originally agreed should be allowed to the plaintiff, as the purchaser, was extended sixty days; that at the end of the ninety days they sold the stock for the price mentioned in the account, and that the plaintiff had full notice of the sale and its result; and that, with this knowledge, he himself ordered the sale of the thirty-five shares of the Sixth-avenue Railroad stock, at the price that was obtained for it; and, finally, that after the account of the defendants had been rendered to him, and with the account in his hands, he, in express words, admitted that the charges which it contained were correct, with the single exception of the charge of $150 as a commission for negotiating a loan.

All the facts above stated are substantially found by the judge, but he finds these facts in addition:—That on the 13th day of March, 1856, the defendants had no stock standing to their credit on the books of the Nicaragua Transit Company, but on that day, and at all times from the 9th day of January to the 11th day of April, when the sale was made, they had an account of stock equal to two hundred shares deposited with other parties, from whom they had borrowed money upon the security of the stock, and redeemable upon the payment of such loans, and that upon the 13th day of March the average price of the stock was 20¼ per cent.

The learned judge states the law applicable to these facts to be, that the defendants were bound to have kept in their name upon the books of the company, or to have within their power, or in their possession, during the period of the agreement, the amount of two hundred shares, and that the mere right to recall stock deposited as security for moneys borrowed was not such a possession or control as the law requires. The judge also formed as conclusions of law, that the charge made by the defendants of three-eighths of one per cent for carrying the stock for the two periods of thirty days, after the expiration of the first, was, justified by a usage of brokers, binding on the plaintiff; and that the plaintiff was not bound by his admission that the account of the defendants was correct, except as to the charge of $150, there being no evidence that he knew at the time of the stock having been parted with. The judgment which the learned judge finally rendered, and from which this appeal is taken, is that the plaintiff do recover of the defendants the sum of $1,832 53, being the amount of $1,755, with interest from the 13th day of March, 1856, together with their costs to be adjusted.

The sum of $1,755 is the difference between the market value of the two hundred shares on the 13th day of March and the sum for which, as the proceeds of their sale, the plaintiff was credited in the account rendered to him by the defendants on the 11th day of April. The judgment, therefore, manifestly proceeds upon the ground that on the 13th day of March the stock belonged to the plaintiff, and that the defendants, by parting with its possession on that day, unlawfully converted the same to their own use, and rendered themselves liable to him as owner.

The counsel for the defendants filed sixteen exceptions to the decisions of the

judges, but there are only two of these that we shall notice, as they distinctly raise the only question that we propose to consider and determine.

The first of these exceptions is to so much of the decision of the court as declares that the plaintiff was not bound by his admission that the account was correct, except as to the $150; and the second is to the whole decision, upon the ground that no action could be maintained upon the pleading for the conversion by the defendants of the Nicaragua stock to their own use; and the questions that arise upon those exceptions, in the order in which we shall consider them, are—

1st. Whether, considering the nature of the action and of the relief sought, it was within the power, and, indeed, the jurisdiction, of the court to order the judgment appealed from; and

2d. Whether it does not appear from the evidence that all the proceedings of the defendants in reference to the sale, both of the Nicaragua and of the railroad stock, were so fully known and sanctioned by the plaintiff as to preclude him from disputing their legality: and, if either of these questions must be determined in favor of the defendants, it is plain that the judgment appealed from must be reversed, and a new trial be ordered. The only cause of action alleged in the complaint is that the purchase and sale of the Nicaragua stock, as stated in the account of the defendants, were pretended and fictitious, and the relief demanded is exactly that to which, upon proof of these allegations, the plaintiff would be entitled; namely, the return and transfer to him of the thirty-five railroad shares which he had deposited with the defendants as a collateral security. The cause of action for which the judgment was rendered is that the plaintiff was the lawful owner of the Nicaragua shares which he had ordered to be purchased, and that the defendants unlawfully converted the same to their own use. It is impossible to say that the difference between these causes of action can be regarded as an immaterial variance, which the court was at liberty to disregard, or even as a variance which, under any possible construction of the provisions of the code, might be cured by an amendment. It is evident that the cause of action for which the plaintiff was permitted to recover, not only differed in its entire scope and meaning from that stated in the complaint, (code, sec. 171,) but which directly contradicted all the allegations in the complaint upon which the demand for relief was founded. The complaint avers that the Nicaragua shares ordered by the plaintiff never were purchased by the defendants. The judge decided, and his judgment necessarily implies, that the purchase was made by them in conformity to his order. The complaint denies that any moneys were advanced by the defendants on the plaintiff's account. The judge decided, and his judgment implies, that they advanced the whole sum which they charged as the purchase money of the stock. The complaint denies that any loans were negotiated by the defendants for the plaintiff. The judge decided that such loans were negotiated, and this also his judgment implies, since otherwise the $150, which he allowed to the defendants for negotiating such loans, would have been added to the sum for which judgment was rendered. The manifest result is that the plaintiff was adjudged to be entitled to a sum of money that he never claimed, and to be so entitled upon grounds that in his complaint he denied to be true, and upon the trial attempted to disprove. The only issues made by the pleadings were, whether the purchase and sale of the Nicaragua stock were real or fictitious, and whether the sale of the railroad shares were made without authority. These were the only issues that the judge could rightfully try and determine. He determined them both in favor of the defendants, and yet rendered a judgment for the plaintiff. We are compelled to think, and it is our duty to say, that the proceeding was anomalous and without precedent or warrant; that there is no rule of the common law, and no provision of the code, by which it could be justified, and that the judgment so rendered is, on the very face of the record, erroneous and void.

If it be said that when an answer is interposed the court, under section 275 of the code, may grant to the plaintiff a relief different from that demanded by his complaint, the section itself gives the reply by declaring that the relief so

granted must be "consistent with the case as made by the complaint and embraced within the issue." As the facts upon which the court below founded its decision were proved upon the trial, it has been alleged that the court, by virtue of the powers given by section 173 of the code, might order the pleadings, both complaint and answer, to be so amended as to conform them to the facts as proved. Whether, sitting as an Appellate Court, we have any power to direct such an amendment, is a question it is unnecessary to discuss, since it so happens that the words of the section again furnish a conclusive reply to the argument. They furnish that reply by limiting the exercise of the discretionary power of the court to cases in which the amendment does not change substantially the claim or defence. The change that would here be made by such amendment of the pleadings as would be requisite to sustain the judgment would not merely be substantial but absolute and entire.

We are not aware that there are any other provisions in the code that may possibly be thought to have a bearing upon the question we are considering. If there are any, we have been unable to discover them.

Again, even upon the supposition that the facts proved upon the trial entitled the plaintiff to a recovery of the sum for which the judgment was rendered, and that such a recovery might be had even under the pleadings as they stand, still, when it was rendered certain by the proofs that this was the only relief to which the plaintiff could be entitled, it seems to us very doubtful whether that the jurisdiction of a judge sitting without a jury, in a case in which a trial by jury had not been waived in the mode provided by the code, did not cease, so that his power to render a judgment, unless by the express consent of the parties, was at an end. The suit in its nature, and from the frame of the complaint, was plainly an equity suit, and as such as properly triable by the court alone, and such was evidently the understanding of the counsel and the court; but the decision of the judge turned this equity suit into an action at law for the recovery of money only, which, unless by the consent of the parties, could only be tried by a jury. His decision turned it into an action to recover damages for the wrongful conversion of personal property; and unless such an action may be tried by a judge at Special Term, in the mere exercise of his own will, without a jury, the objection to the present judgment, as showing upon the face of the record an excess of jurisdiction, seems unanswerable—(code, sec. 253, 254, 266.)

It is not, however, on this view of the case that we mean to place our decision, since we wholly reject the supposition that, even had a trial by jury been expressly waived, the judgment appealed from could have been rendered under the pleadings, and in total disregard of the issues which the pleadings raise. It is upon this ground that we hold that the judgment must be reversed, and a new trial be granted with costs.

Placing our decision upon this ground, it is unnecessary to discuss at large the second question; namely, whether the proceedings of the defendants in relation to the stocks were not so fully sanctioned by the plaintiff as to preclude him from disputing their legality. Without dwelling upon all the reasons that have satisfied our minds that the defendants acted throughout by his express or implied authority, we shall content ourselves with showing that the learned judge certainly erred in holding that the plaintiff was not bound by his admission that the account of the defendants was correct, except as to the charge of $150. The reason which the learned judge assigns for this opinion is, that there was no evidence establishing that he knew at the time, which can only mean at the time he made the admission of the stock having been parted with, a reason which necessarily implies that had the knowledge of the plaintiff that the defendants had parted with the possession of the Nicaragua shares before the sale of the 8th of April been proved to the satisfaction of the judge, he would have held that the plaintiff was bound by the sale, and the defendants entitled to judgment. Yet, unless we are to reject entirely the testimony of the only witness examined upon this subject, and who was unimpeached and uncontradicted, nothing is more certain than that the fact that the defendants, before the sale, had parted with the possession of the stock was known to the plaintiff when he made the admissions

that were proved. He knew that the defendants had borrowed money upon the pledge of the stock, and subsequently had parted with its possession. The admissions of the plaintiff, as proved by the witness, were that there was no other error in the account rendered than the charge of $150, which he refused to admit, and that in every other respect the account was right; and the witness swore that he had before informed the plaintiff, in reply to his question what the charge of $150 was for, that it was made for negotiating loans upon the stock. The witness further stated that on the next day the defendant, A. Lockwood. in reply to the same question what the charge of $150 was for, told the plaintiff that it was a commission at the rate of three eighths of one per cent for negotiating loans for the extra sixty days that the stock was carried beyond the first agreement; that it was for borrowing money upon the stock for the extra time, and that this was a commission which the plaintiff, when the credit was extended, had agreed to allow. The plaintiff positively denied that he had agreed to allow the commission that was claimed; but he did not deny that he knew that loans upon the stock were made, and that when the period of credit was extended. it was understood they would be made; nor did he call in question the right of the defendants to part with the possession of the stock for the purpose of procuring them. We, therefore, think that the proof was conclusive to show, nor do we at all doubt that such was the fact, that the plaintiff, when he so fully and distinctly admitted that the charges in the account of the defendants, with a single exception, were correct, possessed the very knowledge that the learned judge was of opinion, if proved, would have been fatal to his recovery. We think it was proved, and agree in the opinion that it was in law a bar to his recovery. As the plaintiff has not appealed from any part of the decision of the judge, it is unnecessary to consider the question whether the commission of $150, charged by the defendants, converted the advance they had made for the purchase of the stock into a usurious loan. But we argue in the opinion of the learned judge, that even if the charge was improper, it would not have the effect of tainting with usury the original transaction—the agreement for the purchase of the Nicaragua stock. Whether the charge was properly made, or was sufficiently sustained by evidence upon the trial, are questions upon which we decline to express an opinion, as they may evidently arise in a new action, properly brought by the plaintiff for the recovery of the balance due to him upon the account of the defendants as rendered. They are not questions that, in our judgment, can properly be decided in the present action.

The judgment appealed from must be reversed, and there must be a new trial, with costs to abide the event.

FREIGHT ON DAMAGED CARGO.

United States Circuit Court. Lorenzo N. Ireguist *vs.* George B. Morewood, *et al.*

Nelson, C. J.—The libel in this case was filed to recover freight, amounting to the sum of $9,160 56, upon a cargo of coffee and spices shipped from Padang on the Island of Sumatra, and Batavia on the Island of Java, in the fall of 1853, in the brig Gothland.

The respondents set up damages sustained by the cargo on the voyage by way of abatement of the freight in consequence of bad stowage, neglect of proper ventilation of cargo, etc. The vessel arrived at this port in March, 1854, after a voyage of ninety-eight days.

The court below decreed the whole of the freight for the libelant, with interest on the same, holding that the ship was not chargeable with the damage to the cargo.

Considerable additional evidence has been taken in this court since the appeal on behalf of the respondents, tending to prove negligence on the part of the master and crew in protecting the cargo in the course of the voyage, and also negligence in the stowage or filling the ship.

It is agreed by all parties that the damage to the coffee and spices arose from

the dampness and sweat of the hold of the vessel, and the material question in the case, and the one principally discussed by the counsel on the argument, is whether or not the damage could have been prevented by proper care, diligence, and skill of the master and hands, or was occasioned by their neglect. In the case of Clark, *et al.*, *vs.* Barnwell, *et al.*, (12 How., 272, 282. 283,) the court held that damage to goods occasioned by the effect of humidity and dampness in the hold, in the absence of any fault in the ship, or in the navigation of her, or in the stowage, was a damage from one of the dangers and accidents of the seas for which the carrier is not liable. The exception in the bill of lading in the case before us is as broad as in the case of the 12 Howard.

The question, then, is one of fact, and must be determined upon the weight of the evidence. We have examined it with a good deal of care, both that which was taken in the court below and in this court, and have arrived at the conclusion that the cargo was well stored and the ship properly filled; that the usual and proper care was taken by the master in the progress of the voyage, at all times when the weather would permit, to ventilate the cargo by opening the hatches; and that the damage was the effect of dampness and sweat in the hold of the vessel, incident to a passage from a warm to a cold climate, and especially of stormy or tempestuous weather in the latter, without the fault of the master in the navigation. Decree affirmed.

RECOVERY OF DUTIES ON SEIZED GOODS.

United States Circuit Court. Edmund Jungbluth *vs.* Heman J. Redfield.

NELSON, C. J.—This is an action by the plaintiff against tle Collector, to recover back the additional duty or penalty of 50 per cent, imposed under section 17 of the act of 1842, upon a case as follows:—After the goods were entered, the Collector seized them for a violation of the revenue laws.

The claimant released the goods from the seizure, by giving a bond under section 89 of the act of 1799, which requires that the duties shall be first paid, and a certificate of the Collector of the Port produced to the court before whom the bond is entered into. On the appraisal of the goods, with a view to the payment of the duties, the 50 per cent penalty was imposed under an act of 1842, for undervaluation, and which, with the duties, was paid under protest.

Subsequently the parties, having become satisfied that the goods were subject to a technical forfeiture for an infraction of the revenue laws, petitioned the Secretary of the Treasury for a remission of the same, under the first section of the act of 1797, which was granted, and the forfeiture remitted upon condition "of the payment of the duties, and any additional duties, on the merchandise in question, if they have not already been paid, and of all the costs."

It is insisted on the part of the counsel for the plaintiffs that the power of the Secretary under this act to remit can only be exercised by granting the remission of the forfeiture absolutely, and cannot be conditionally, except as to the costs of prosecution; and hence that the condition of payment of the illegal duties or penalties is void.

We differ with the learned counsel in the construction to be given to this section. The power, no doubt, is absolute—that is, the Secretary may remit at discretion the whole of the forfeiture—but this power carries with it an authority to remit any part less than the whole, or upon a condition consistent with law. *Omne majus contienet in se minus.*

We are also inclined to think that the act, in express terms, confers the power claimed by the Secretary. The power given is "to mitigate or remit" the forfeiture, or any part thereof, and to direct the prosecution, if any, to be discontinued, "upon such terms or conditions as he may deem reasonable and just."

Besides, in this case, the whole subject was submitted to the judgment of the Secretary, and passed upon by him, and if the parties were dissatisfied with the decision they should have refused to accept the remission on the terms granted. Instead of this, they have taken up their bond, and paid the costs of the prosecution, and are enjoying the benefit of their remission of the forfeiture.

Judgment for the defendant on the case made.

COMMERCIAL CHRONICLE AND REVIEW.

BUSINESS OF THE MONTH—IMPORTS OF GOODS—REDUCTION OF STOCKS—MANUFACTURES—RAW MATERIALS—DULLNESS OF CONSTRUCTION—RECEIPTS AND PAYMENTS—SPECIE IN BANKS—SPECIE MOVEMENT—EXPORTS OF BOSTON AND NEW YORK—DESTINATION OF SPECIE—ASSAY-OFFICE—GOLD SENT SOUTH—RATES OF BILLS—REMITTANCES—INTEREST ABROAD—SPECIE AND INTEREST—BANKS OF PARIS AND LONDON—PURCHASES OF GOLD BY BANK OF FRANCE—COST OF GOLD—DIVIDENDS—RESUMPTION IN AUSTRIA—GOOD POSITION OF CROPS—STATE OF IMPORTS—DECLINE OF REVENUES—GOVERNMENT LOAN.

THE month has passed without material change in the general aspects of commercial or financial affairs. The fall business has closed upon the whole satisfactorily, although far from exhibiting that activity which many sanguine dealers had looked forward to as the result of recovery from the stagnation of the previous season. The imports of goods, as will be seen by the usual tables annexed, have been to a fair extent, but have not equaled the sales, since a larger quantity has been put upon the market than has arrived. The disposition has been still to reduce stocks of commodities, and contract obligations, rather than to extend them. It has been the case, however, that the manufacturers of almost all descriptions of goods have had more to do. The cotton and wool spinners have all bought more largely of materials. The cotton spinners last year, September 1st to November 14th, took but 2,169 bales of cotton; this year they have taken 91,406 bales. The wool manufacturers are also well in stock. The boot and shoe dealers have improved their operations to a great extent, and the hardware manufacturers have more orders than for many months previously. In building, either dwellings, stores, ships, or roads, there is not much doing, and the demand for money from the manufacturers, increasing though it is, does not absorb the amount of money returning to first hands. The last few years have been of large sales on long credits. The two last seasons have been of small sales on terms as near cash as possible. Hence, little money has gone out, while large payments from former sales mature and are paid with more or less promptness. It follows that money accumulates. The low prices of farm produce abroad have for the moment checked exports, and far less than the usual amount of money is wanted to move other crops, but the cotton movement continues considerable, and a good deal of specie has gone South from New York as well as abroad.

The general movement of specie is now from the centers of business to the agricultural districts, following the crop movement. The specie in the cities of London and Paris and in the United States is as follows :—

SPECIE IN BANKS.

	October.	March 11.	July 12.	August 14.	September 9.	October 18.
London.	$35,850,110	$88,632,091	$84,217,895	$83,937,637	$87,311,010	$94,365,436
Paris..	35,585,613	63,323,865	98,991,184	105,283,051	116,953,892	103,007,890
N. York	7,843,230	32,961,076	35,328,184	44,037,300	40,686,300	38,705,300
N. Orl'ns	3,230,370	10,978,759	10,877,768	10,912,871	11,285,308	11,473,272
Boston.	2,563,112	7,589,968	9,000,663	8,795 945	8,701,679	8,692,225
Philad..	2,071,434	5,448,514	6,399,754	6,875,520	6,635,856	7,361,906
Total	86,743,890	208,834,273	244,855,448	259,842,424	270,336,009	263,606,549

The specie movement weekly has been as follows :—

GOLD RECEIVED FROM CALIFORNIA AND EXPORTED FROM NEW YORK WEEKLY, WITH THE AMOUNT OF SPECIE IN SUB-TREASURY, AND THE TOTAL IN THE CITY.

	1857.		1858.			
	Received.	Exported.	Received.	Exported.	Specie in sub-treasury.	Total in the city.
Jan. 16.....	$1,269,107	$250,000	$1,607,440	$1,045,490	$2,934,000	$33,145,286
23.....	.....	781,295	.....	1,244,368	3,073,900	33,903,151
30.....	1,460,900	.....	1,565,779	57,075	3,288,500	34,561,500
Feb. 6.....	225,955	1,177,812	.....	2,928,271	3,168,787	33,821,735
13.....	1,097,186	348,216	1,348,507	48,850	3,384,800	33,611,075
20.....	.....	279,667	.....	641,688	3,360,000	34,776,076
27.....	1,296,108	26,708	1,640,480	128,114	3,420,900	35,079,294
Mar. 7.....	636,000	967,405	.....	297,898	2,996,700	35,736,431
13.....	.....	422,914	1,279,184	225,274	2,964,000	35,925,076
20.....	1,004,000	306,351	11,000	116,114	6,853,852	37,681,656
27.....	....	38,734	1,403,949	83,120	6,141,594	37,071,066
April 3.....	1,487,128	742,233	.....	115,790	5,548,069	37,078,069
10.....	375,800	468,698	.....	250,246	4,875,975	36,912,411
17.....	1,229,238	779,892	1,325,198	203,163	3,841,577	37,035,026
24.....	140,075	106,200	41,208	15,850	3,695,071	37,808,806
May 1.....	1,800,000	1,711,890	1,550,000	136,873	3,145,400	38,209,618
8.....	.....	671,101	.....	106,110	2,874,200	38,327,346
15.....	1,929,527	1,826,629	1,626,171	720,710	6,853,590	41,586,300
22.....	198,000	353,166	.....	532,862	5,566,300	39,613,700
29.....	1,658,072	2,714,002	1,575,991	400,300	6,398,500	37,894,600
June 5.....	.....	489,668	.....	51,425	5,263,300	38,053,660
12.....	1,920,168	3,394,892	1,446,175	16,616	4,803,609	38,170,900
17.....	208,000	2,045,389	.....	68,318	7,773,108	38,011,251
26.....	.....	2,019,406	1,799,502	276,487	7,461,600	39,410,688
July 3.....	1,892,000	58,228	.....	317,110	5,820,000	39,650,000
10.....	.....	1,184,115	1,500,000	564,030	5,342,200	40,047,800
17.....	1,591,107	523,868	.....	637,240	5,157,600	40,485,000
24.....	200,000	1,893,893	.....	1,028,270	5,336,000	40,851,000
31.....	1,488,040	896,407	1,163,818	303,318	5,144,700	40,856,800
Aug. 7.....	.....	1,615,932	.. ....	786,841	5,553,400	40,699,200
14.....	1,245,905	930,430	1,531,514	440,729	12,886,800	44,037,300
22.....	.....	2,180,008	.....	844,781	17,739,600	46,089,100
29.....	.....	149,399	1,434,674	187,941	13,418,000	41,285,000
Sept. 4.....	1,706,000	287,500	.....	562,087	13,077,000	41,125,600
11.....	100,000	187,187	1,796,139	227,980	12,626,900	40,686,300
18.....	lost, C. A.	102,968	.....	1,361,110	12,612,200	41,420,200
25.....	260,000	10,687	1,570,924	474,945	11,838,000	40,463,000
Oct. 2.....	.....	412,600	.....	1,126,404	11,100,600	39,633,700
9.....	1,268,735	69,000	1,822,005	675,817	10,476,649	39,646,853
16.....	1,664,200	5,000	.....	886,234	10,198,837	39,705,345
23.....	600,000	.....	.....	401,866	9,695,817	38,377,246
30.....	1,877,858	177,545	1,352,101	593,310	9,151,500	35,859,300
Nov. 6.....	2,605,457	227,000	.....	184,452	8,256,052	34,593,407
13.....	1,207,000	697,650	1,672,656	142,130	7,808,518	.....
Total.....	35,464,467	33,880,348	30,400,126	23,791,805	.....	.....

The exports last year were stopped during the panic, but have been sustained from New York this year. From Boston the exports for October were $193,000. The whole exports from Boston and New York since January have been as follows :—

SPECIE EXPORTS—JANUARY 1ST TO NOVEMBER 6TH.

	1857.	1858.
Boston.....	$6,913,099	$2,522,653
New York.....	33,182,698	23,649,675
Total exports.....	$40,095,797	$26,172,328
Total receipts.....	34,254,447	23,649,67

The description and destination of specie exported from the port of New York for six months, to November 8, were as follows:—

SHIPMENTS OF SPECIE FROM PORT OF NEW YORK.

	American coin.	Bars.	Silver.	Sov'reigns.	D'bloons.	French gold.	Spanish silver.	Total.
Liverpool .	.....	1,275,488	....	9,800	.....	....	...	1,285,288
Havre.....	18,342	408,477	....	.....	.....	....	....	426,819
Hamburg .	1,250	7,280	....	.....	.....	....	....	8,530
Bremen ...	.....	183,000	....	.....	.....	....	....	183,000
Porto Rico.	10,000	.....	....	.....	9,510	....	1,500	21,010
B. Ayres...	.....	.....	....	.....	63,735	....	....	63,735
Laguayra..	5,000	.....	....	.....	.....	....	....	5,000
Jacmel ...	1,000	.....	....	.....	. ...	....	....	1,000
Sumatra...	.....	.....	....	.....	.....	....	51,600	51,600
Shanghae..	100	.....	....	.....	.....	....	....	100
Rio Grande	1,500	.....	....	.....	5,000	....	1,000	7,500
E. Indies..	.....	.....	....	.....	.....	....	12,000	12,000
Total...	$37,192	1,874,195	....	9,800	78,245	....	76,100	2,065,532
May 8th to Nov. 8th	2,154,802	10,418,943	49,666	317,288	362,532	88,575	165,798	13,465,608

The export for the month has been nearly all gold bars to Liverpool and Havre. The supply of foreign coins has, owing to the considerable decline in immigration, been far less abundant, and the outward movement of those metals has been very limited. Of $2,065,000 exports for the month, only $37,192 was American coin. The operations of the New York Assay-office show for October deposits $1,550,000 of gold, and $286,000 of silver, of which only $270,000 was ordered into coin, the balance in bars for export. If we compare the Assay-office operation for three months ending with October, the results are as follows:—

	Deposits.		Payments.	
	Gold.	Silver.	Bars.	Coin.
1856	$5,033,000	$82,100	$5,049,700	$56,000
1857	4,918,000	1,170,000	1,364,000	4,920,000
1858	4,795,000	1,147,000	4,688,000	1,254,000

The supply of both metals was larger last year than this or the year 1856. The prevalence of the panic caused a great disturbance last year in the mode of payment, coin being in demand. The small imports, and the continued fair exports of cotton and other produce, have given a good supply of bills, and they attracted to the South some millions of gold from the New York banks, the effect of which is seen in the above table in a fall of over five million dollars in the specie held in the city. The movement, however, reacted upon the bill market, causing a marked decline, which expressed itself as follows:—

	November 1.	November 8.	November 15.
London.....	9¼ a 10	9¼ a 9⅜	8⅞ a 9⅛
Paris.....	5.12½ a 5.15	5.13¾ a 5.16¼	5.15 a 5.18¾
Amsterdam	41⅛ a 41⅜	41⅛ a 41⅜	41⅛ a 41⅜
Frankfort.....	41⅛ a 41⅜	41⅛ a 41⅜	41⅛ a 41⅜
Bremen	79⅜ a 79⅝	79⅛ a 79⅜	79 a 79¼
Hamburg.....	36⅛ a 36⅜	36⅛ a 36⅜	36⅛ a 36⅜
Antwerp	5.12½ a 5.15	5.13¾ a 5.15	5.15 a 5 16¼
Berlin, Liepzig, Cologne...	72¼ a 73⅛	72¼ a 73	72¼ a 73

The rates of money here being so unusually low at this season—say 3 a 4 per cent on call stocks collateral, 4 a 4½ premium short bills, and 5 a 6 per cent

over ninety days, the employment of money here offers no better terms than abroad at the present rates of bills. The payments continue to be good from most parts of the country except from the extreme West, where the depression, by reason of the breaking down of the land speculation, the cessation of railroad expenditure, the stoppage of migration, and the low prices of produce, with failure of crops in some locations, are all circumstances adverse to present payments. Nevertheless, banks are being there organized under the new laws. Minnesota has ten or twelve banks organized, and in Iowa the State Bank has been started with many branches; as far as these banks indicate the migration of capital to these States to start the banks, they are favorable features, but little is to be expected from them beyond that. In other sections the payments have been such as to liquidate a large mass of paper, and the payments of foreign debts have been very considerable, enough so as to have a good effect on American credit. The aspect of affairs abroad seems to be encouraging. All the elements of a good season for business are active. Cheap money, cheap food, abundant labor, and cheap materials; while in England and Western Europe the crops are good. In France, the wine and silk crops are also good, and show but little outward demand for money, which continues to accumulate, although the resumption of the Bank of Austria has caused a demand for money and a rise of interest in some of the German cities. The gradual accumulation of money last month induced a reduction of the Paris rate of interest to 3 per cent, and it has been expected that the London rate would undergo a further reduction, but the movement is postponed apparently until the Bank of Austria has fairly resumed its specie payments and the resulting disturbance passed away.

During forty years the Bank of France kept the rate at 4 per cent, but since the modification of the usury laws, and the greater degree of activity imparted to enterprise in France, the fluctuations have been more marked. Never before has the quantity of specie in the bank obtained such a magnitude, it having reached, September 9th, $116,953,892 in both bank and branches, while the sum of commercial bills discounted was small. Gold continues to flow freely into France, while the outward current of silver is checked. The bank rate of interest stands comparatively as follows:—

BANK OF FRANCE.

	1855.		1856.		1857.		1858.	
	Specie.	Dis.	Specie.	Dis.	Specie.	Dis.	Specie.	Dis.
January	$67,115,810	4	$38,644,546	6	$35,897,139	6	$47,128,830	5
February	79,215,823	4	40,176,922	6	36,585,131	6	53,635,138	4½
March	82,664,903	4	38,268,236	6	41,678,545	6	63,323,865	4
April	81,184,398	4	50,293,190	5	45,980,402	6	71,780,888	4
May	78,921,398	4	53,688,381	5	43,749,456	6	82,993,386	4
June	74,531,026	4	53,680,536	5	53,397,182	6	85,716,528	3½
July	59,060,551	4	43,203,714	5	49,195,570	5½	98,991,934	3½
August	63,522,457	4	46,412,781	5	45,975,784	5½	105,283,051	3½
September	54,581,500	4	44,229,960	6	46,296,110	5½	116,953,892	3
October	43,583,808	5	31,212,119	6	42,286,591	6½	103,007,890	3
November	39,665,555	6	30,706,956	6	35,585,613	8	.....	.
December	42,379,830	6	36,247,389	6	44,630,121	6	.....	.

The rate of interest is now the same as in the Bank of England. In England a similar state of affairs is apparent in so far as that the drain for coin upon the bank appears to have ceased, and the bullion at the latest date had risen to £19,498,000. Its returns are as follows:—

BANK OF ENGLAND.

	1855.		1856.		1857.		1858.	
	Specie.	Dis.	Specie.	Dis.	Specie.	Dis.	Specie.	Dis.
January.....	£12,162,000	5	£10,416,951	6	£10,182,406	6	£13,357,107	6
February	12,981,000	5	10,618,719	6	9,979,246	6	16,574 647	3
March.....	13,662,000	5	10,553,565	6	10,310,496	6	17,713,242	3
April.....	15,206,000	4½	9,858,667	6	10,322,297	6½	15,307,389	3
May.....	15,499,000	4	9,788,582	6	9,808,127	6½	17,926,986	3
June.....	18,060,716	3½	13,073,758	4½	10,290,640	6	18,020,944	3
July	17,328,896	4	12,378,327	4½	11,516,856	5½	17,938,447	3
August.....	16,275,295	4	12,494,945	4½	11,259,906	5½	17,340,421	3
September....	14,828,000	4½	12,141,311	4½	11,276,088	6	18,039,465	3
October	12,294,281	5½	10,784,254	6	10,662,692	7a8	19,496,991	3
November ...	11,234,436	6	9,530,152	7	7,170,508	9a10	.....	.
December....	11,079,578	6	10,486,298	6½	10,753,281	8	.....	.

The specie which now arrives goes into bank. The European and the internal demand is at an end, while the sum accumulating threatens far to exceed any former amount.

The Bank of France has ceased to be a purchaser of gold on the terms of the last three years, but the resumption of specie payments, November 1st, by the National Bank of Austria has caused such an internal demand for money in Europe as to have compelled a rise in the rate of interest at most of the centers of finance, and a restrictive action on the part of the lenders. The reduction of the circulation of Austria has given a check to speculation upon the stock exchange, and threatens a large redemption at this season of a dull trade, but the crops of Europe being good, and every element of activity returning, the demand for circulation of both paper and metals will show itself, and this demand will cause a drain of the metals; and in those countries like Austria, where silver is the chief medium, the effects of the China drain are still to be felt, and the appreciation of that metal may yet manifest itself in relation to gold. In Austria, the circulation of the National Bank is now 389,613,459 florins, or two hundred million dollars. The figure has been much higher, and the paper circulation at an agio 3 a 8 per cent for silver. This currency, as a matter of course, drove out the silver, which found its way to the East, and that without causing much relative change in its value, because if paper was substituted so largely for it in Austria, and gold in France, the rejected metal found a market in Asia. Austria now demands silver for a currency on the eve of a revival of prosperity, when the quantity of all the currency required will be greater. This effective European demand will test the value of silver under the new gold influences.

The favorable position of all the institutions and crops abroad promises well for a renewal of the export trade of the United States, although prices are there low for food. The French government has postponed for another year the reimposition of duties on grain, and prices, as well as freights, are very low in the United States, and an improved export trade may be looked for.

The state of business, as manifested in the usual tables annexed, indicate that the remainder of the government loan cannot long be withheld from the market. The amount of money in the Federal treasury stood at $10,868,934, September 27th, and fell to $7,889,257, October 25th, a decline of three million dollars in the month of usually large revenues. November and December are dull months, and five million dollars is stated officially as the minimum that can be held in

the treasury. It is, therefore, apparent that the remaining ten million dollars must come speedily upon the treasury.

The imports of merchandise at New York, for the month of October, show a large gain upon the corresponding total of last year, but the great bulk of entries was for consumption, instead of being thrown into warehouse, as was the case last year. The receipts of free goods have been increased by the additions to the free list under the new tariff, but the imports of specie have been greatly reduced. The total entered at the port for October, including specie, is $896,883 less than for October, 1857. We annex a comparison, which includes four years :—

FOREIGN IMPORTS AT NEW YORK IN OCTOBER.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$12,088,621	$9,932,001	$2,791,905	$9,234,470
Entered for warehousing.....	2,379,886	2,836,781	7,356,424	2,157,678
Free goods.....	1,082,125	961,781	1,782,345	2,061,468
Specie and bullion.....	54,399	95,029	2,509,194	89,368
Total entered at the port.....	$15,605,031	$13,825,592	$14,439,867	$13,542,984
Withdrawn from warehouse.....	1,597,437	3,273,982	1,750,392	2,462,425

The total entered at the port since January 1st is $79,072,522 less than for the same time last year, and less than for either of the preceding three years.

FOREIGN IMPORTS AT NEW YORK FOR TEN MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Entered for consumption.....	$96,753,676	138,832,192	117,314,904	$85,816,904
Entered for warehousing.....	21,567,338	31,331,443	64,212,297	22,389,828
Free goods.....	11,335,119	15,663,426	17,287,050	18,613,563
Specie and bullion.....	733,398	1,245,799	9,189,107	2,110,541
Total entered at the port.....	130,389,531	187,072,860	208,003,358	128,930,836
Withdrawn from warehouse.....	21,068,896	22,371,624	33,872,666	33,560,002

The imports of dry goods (included in the above) have been divided very much in the same proportion as the receipts of general merchandise, the greater portion having been entered for consumption. The total of dry goods entered at the port is $565,722 more than for October of last year, and the quantity put on the market is $3,328,339 more than last year :—

IMPORTS OF FOREIGN DRY GOODS AT NEW YORK FOR THE MONTH OF OCTOBER.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$1,738,240	$910,699	$200,452	$1,008,686
Manufactures of cotton.....	770,574	594,649	95,994	529,125
Manufactures of silk.....	1,666,267	1,005,771	145,702	1,364,921
Manufactures of flax.....	718,110	408,354	70,197	415,880
Miscellaneous dry goods.....	426,027	386,998	110,490	226,528
Total.....	$5,319,218	$3,306,471	$622,835	$3,545,090

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$59,112	$169,765	$61,255	$300,980
Manufactures of cotton	57,360	69,032	20,408	64,094
Manufactures of silk	186,651	59,091	49,929	54,498
Manufactures of flax	43,912	62,416	4,902	72,534
Miscellaneous dry goods	32,447	31,133	25,258	75,730
Total	$329,482	$391,437	$161,752	$567,836
Add entered for consumption	5,319,218	3,306,471	622,835	3,545,090
Total thrown on market	$5,648,700	$3,697,908	$784,587	$4,112,926

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool	$120,575	$155,399	$779,708	$94,022
Manufactures of cotton	188,752	301,681	479,056	78,761
Manufactures of silk	69,525	67,424	877,371	44,216
Manufactures of flax	108,412	159,846	312,629	80,506
Miscellaneous dry goods	21,240	83,851	256,540	51,266
Total	$508,504	$768,201	$2,705,304	$348,771
Add entered for consumption	5,319,218	3,306,471	622,835	3,545,090
Total entered at port	$5,827,722	$4,074,672	$3,328,139	$3,893,861

This leaves the total receipts of dry goods at New York from foreign ports, since January 1st, $34,312,265 less than last year :—

IMPORTS OF FOREIGN DRY GOODS AT THE PORT OF NEW YORK, FOR TEN MONTHS, FROM JANUARY 1ST.

ENTERED FOR CONSUMPTION.

	1855.	1856.	1857.	1858.
Manufactures of wool	$14,762,483	$22,225,997	$19,211,416	$14,899,522
Manufactures of cotton	7,284,754	13,357,725	13,844,025	8,087,121
Manufactures of silk	18,878,589	26,260,353	22,057,413	15,824,483
Manufactures of flax	4,893,680	7,057,713	5,114,515	3,775,793
Miscellaneous dry goods	4,503,056	6,260,955	5,490,856	2,924,698
Total	$50,322,562	$75,162,743	$65,718,225	$45,511,617

WITHDRAWN FROM WAREHOUSE.

	1855.	1856.	1857.	1858.
Manufactures of wool	$2,271,944	$2,487,694	$4,876,938	$4,304,226
Manufactures of cotton	2,041,920	1,888,943	2,738,823	3,344,757
Manufactures of silk	2,485,211	1,823,401	3,912,795	3,119,963
Manufactures of flax	1,107,080	927,274	1,394,028	1,940,560
Miscellaneous dry goods	740,646	367,108	733,135	1,212,109
Total withdrawn	$8,646,801	$7,494,420	$13,655,719	$13,921,615
Add entered for consumption	55,322,562	75,162,743	65,718,225	45,511,617
Total thrown upon market	$58,969,363	$82,657,163	$79,373,944	$59,433,232

ENTERED FOR WAREHOUSING.

	1855.	1856.	1857.	1858.
Manufactures of wool.....	$1,569,684	$2,926,688	$7,429,904	$2,003,664
Manufactures of cotton.....	1,440,562	1,889,732	3,557,696	1,726,791
Manufactures of silk.....	1,815,763	1,937,818	5,525,267	1,076,773
Manufactures of flax.....	880,309	940,312	2,270,263	808,779
Miscellaneous dry goods.....	618,797	576,398	1,674,084	535,150
Total.....	$6,325,115	$8,270,948	$20,457,214	$6,151,157
Add entered for consumption....	50,322,562	75,162,743	65,718,225	45,511,617
Total entered at the port.....	$56,647,677	$83,433,691	$86,175,439	$51,662,774

The exports from New York to foreign ports, during the month of October, show a falling off from the corresponding total of last year in every item but specie and bullion; this is owing to the decreased demand for breadstuffs, and will sufficiently explain the current low rates for flour in this market. The item of specie is more than last year, when the specie movement was arrested, but is less than for the preceding year :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR THE MONTH OF OCTOBER.

	1855.	1856.	1857.	1858.
Domestic produce.....	$6,614,146	$6,129,837	$6,491,529	$5,233,363
Foreign merchandise (free).....	31,505	71,931	212,443	161,063
Foreign merchandise (dutiable)..	201,939	130,577	806,049	359,185
Specie and bullion	1,188,109	4,996,660	297,259	3,028,405
Total exports.....	$8,035,699	$11,329,005	$7,807,280	$8,782,016
Total, exclusive of specie ..	6,847,590	6,332,345	7,510,021	5,753,611

This brings the exports from New York, since January 1st, (exclusive of specie,) $10,575,804 below the total for the corresponding ten months of last year :—

EXPORTS FROM NEW YORK TO FOREIGN PORTS FOR TEN MONTHS, FROM JANUARY 1ST.

	1855.	1856.	1857.	1858.
Domestic produce.....	$46,422,445	$63,466,032	$53,725,298	$46,767,981
Foreign merchandise (free).....	3,489,470	820,006	2,339,769	1,286,624
Foreign merchandise (dutiable)...	3,983,183	2,684,930	4,910,199	3,345,557
Specie and bullion.....	25,627,305	32,483,746	33,585,891	23,631,253
Total exports.....	$79,522,403	$99,454,714	$95,561,157	$75,031,715
Total, exclusive of specie...	53,895,098	66,970,968	61,975,266	51,400,462

The differences in the receipts for duties during the last month, and for the corresponding month of last year, is particularly striking. In October, 1857, but few goods, even of those imported, were thrown upon the market, while for the last month the total marketed was greater than the aggregate value of the entries, the stock in warehouse being again reduced. We annex a summary of the total receipts since January 1st :—

CASH DUTIES RECEIVED AT NEW YORK.

	1856.	1857.	1858.
First quarter	$11,642,681 46	$13,406,813 26	$5,918,711 60
Second quarter	10,898,464 29	5,886,708 85	5,170,400 97
Third quarter.....	14,430,078 03	13,183,832 90	9,605,358 97
In October.....	3,391,230 97	867,534 99	2,054,834 43
Total since January 1st....	$40,362,454 80	$33,334,890 00	$22,749,305 97

JOURNAL OF BANKING, CURRENCY, AND FINANCE.

PHILADELPHIA "CLEARING" HOUSE.

The Philadelphia *Commercial List* gives the following account of the formation and operation of the Clearing-house of that city. That of New York went into operation October 1, 1853, and has operated with the greatest success. That of Philadelphia went into operation November 22, 1858. The *Commercial List* remarks:—

The clearings daily, at this establishment, amount, in the aggregate, to three or four millions of dollars.

	Clearings.	Balances paid.
March 22 to 31	$28,466,432 48	1,554,155 34
April	70,250,278 53	4,632,115 27
May	71,094,719 94	4,330,135 68
June	64,605,439 29	4,105,612 65
July	64,857,890 95	4,758,624 09
August	60,605,355 63	4,024,529 84

The "Clearing-house" rooms are in the Farmers and Mechanics' Bank building, and are arranged for the accommodation of the clerks who represent the various banks, and for the meetings of the officers of the banks composing the Clearing-house Association. In the clearing room are counters with drawers, etc., divided off with brackets, affording convenience for two clerks from each of the seventeen city banks. Before half-past eight o'clock every morning the clerks assemble, and the "*settling clerks*" take their places behind the counter with their sheets prepared, showing the different amounts of money their respective banks have received the day previous, and which they have brought sealed up in packages for the banks which issued or redeem it. The "*package clerks*" stand opposite the settling clerks, outside the counter with carpet bags containing the money, having also a sheet showing the amount of money they have for each bank, with a space for the signature of the settling clerks. At the signal from the manager (8¼ o'clock precisely) the package clerks move one pace to the left, deliver a package and take a receipt, and continue on in a similar manner until all their packages are delivered. As the settling clerks receive these packages they keep a record of the several amounts, and also of the *total* amount each bank has brought to the Clearing-house. This is all accomplished in from five to six minutes, and the carpet bags are again filled with the "amount received," and the package clerks start to their respective banks with the money. The settling clerks remain, and having the "*amount brought*," and ascertained the "*amount received*," they strike the balance and see how much they are debtor or creditor. This record being made on the package slips, they are passed round, and each clerk takes down the amount received by each bank and its balance. The balances and totals must agree, and from fifteen to twenty minutes from the time the signal was given, the settlement is made and the settling clerks leave. At from 11 to 12 o'clock the debtor banks send to the Clearing-house and pay their balances *in coin*, and at 12½ o'clock the creditor banks send and *receive* their balances. A regular record of all these transactions is kept at the Clearing-house, with a ledger account with each bank, showing its daily working, and also a weekly and monthly record of the several clearings and balances. There is a vast array of figures. The large amounts certainly show a much greater business done by the banks than might be indicated by the business among merchants and others. The clearings daily are from two millions to four millions of dollars.

CITY WEEKLY BANK RETURNS.

NEW YORK WEEKLY BANK RETURNS.

	Loans.	Specie.	Circulation.	Deposits.	Average clearings.	Actual deposits.
Jan. 2	$98,549,983	$28,561,946	$6,490,403	$78,635,225	$13,601,357	$65,033,867
9	98,792,757	29,176,888	6,625,464	79,841,362	13,899,078	63,942,284
16	99,473,762	30,211,266	6,349,325	81,790,321	14,066,412	67,723,909
23	101,172,642	30,829,151	6,336,042	82,598,348	13,074,762	69,523,836
30	102,180,089	31,273,023	6,369,678	83,997,081	13,519,330	70,477,751
Feb. 6	103,602,932	30,652,948	6,873,931	86,000,468	15,489,088	70,561,405
13	103,783,306	30,226,275	6,607,271	84,229,492	13,803,583	70,425,909
20	103,706,734	31,416,076	6,542,618	86,773,222	14,769,565	72,003,657
27	103,769,127	31,658,694	6,530,759	87,386,311	15,657,056	71,729,805
March 6	105,021,863	32,739,731	6,854,624	90,382,446	18,002,665	72,370,781
13	105,293,631	32,961,076	6,755,958	90,063,432	16,511,506	72,552,926
20	107,440,350	31,902,656	6,853,852	91,238,505	17,064,588	74,173,917
27	109,095,412	30,929,472	6,892,231	90,644,098	16,429,056	74,201,709
April 3	110,588,354	31,530,000	7,232,332	93,589,149	17,567,160	76,021,989
10	110,847,617	32,036,436	7,245,809	93,566,100	16,775,237	76,790,863
17	111,341,489	33,196,449	7,190,170	96,448,450	17,329,431	78,121,025
24	111,003,476	34,113,891	7,140,851	95,340,344	16,141,451	79,198,893
May 1	111,868,456	35,064,213	7,431,814	98,438,506	17,875,203	80,563,303
8	112,741,955	35,453,146	7,735,056	101,165,806	19,438,661	81,727,146
16	114,199,288	34,730,728	7,502,975	101,884,168	18,284,868	83,599,295
22	115,658,082	34,047,446	7,307,445	101,917,869	17,620,131	84,297,738
29	116,650,943	31,496,144	7,252,616	99,351,901	16,199,657	83,152,244
June 5	116,424,597	32,790,333	7,547,830	101,489,535	17,982,648	83,506,887
12	116,022,152	33,367,253	7,367,725	100,787,073	16,503,899	84,283,194
19	117,797,547	32,396,456	7,297,631	102,149,470	16,818,521	85,280,987
26	118,823,401	31,948,089	7,215,689	101,961,682	15,825,983	86,135,699
July 3	119,812,407	33,830,232	7,458,190	106,803,210	17,267,927	89,535,283
10	118,363,937	34,705,593	7,571,373	106,420,723	18,168,757	88,260,956
17	119,164,222	35,328,184	7,346,946	107,101,061	17,046,961	90,054,100
24	118,946,482	35,315,243	7,351,065	105,490,896	15,365,206	90,105,690
31	119,850,456	35,712,107	7,408,365	106,456,030	15,310,157	91,145,873
Aug. 7	120,892,857	35,154,844	7,784,415	107,454,715	17,115,237	90,339,678
14	123,374,459	31,150,472	7,388,739	105,034,769	15,208,690	89,826,082
21	126,368,231	28,349,507	7,480,684	104,609,658	15,449,895	89,159,763
28	126,004,424	27,817,006	7,466,846	103,928,178	16,208,039	87,720,139
Sept. 4	125,885,840	28,048,661	7,748,249	103,347,811	15,414,213	87,933,594
11	125,013,211	28,059,495	7,830,669	102,899,554	15,989,375	86,908,179
18	124,649,018	28,808,068	7,313,695	104,733,688	17,603,982	87,129,706
25	124,118,904	28,625,331	7,864,373	102,429,344	16,347,447	86,081,897
Oct. 3	123,659,697	28,533,785	7,875,750	104,901,563	19,015,193	85,886,370
9	123,599,250	29,170,204	7,980,519	105,565,930	19,175,717	86,390,208
16	124,216,701	28,506,508	7,890,624	106,497,058	19,907,696	86,589,362
23	124,374,222	28,681,429	7,879,024	108,072,518	20,929,351	87,143,167
30	126,093,586	26,707,817	7,822,909	105,801,256	21,494,870	87,306,387
Nov. 6	126,809,492	26,337,355	8,186,933	109,217,448	21,899,507	87,317,941
13	127,027,519	26,039,277	7,975,420	109,238,497	20,715,976	88,542,521

BOSTON BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
Jan. 5....	$50,726,800	$5,028,000	$5,416,000	$17,078,800	$3,911,000	$5,732,600
12....	51,221,000	5,449,000	5,938,400	17,226,700	4,368,000	5,969,500
18....	51,740,926	5,661,216	5,669,028	17,722,553	4,754,006	5,891,800
25 ...	51,772,412	6,073,680	5,494,721	18,129,649	3,531,721	1,949,031
Feb. 1....	51,854,178	6,402,460	5,251,006	18,395,692	5,111,278	5,725,337
8....	52,011,821	6,872,977	5,498,600	18,602,984	5,317,764	5,756,068
15....	52,137,972	7,079,606	5,898,660	18,429,945	5,568,464	5,523,012
22....	52,089,500	7,257,800	5,299,000	18,450,500	5,329,600	5,377,900
Mar. 1....	51,970,800	7,316,800	5,170,000	18,525,000	5,778,000	5,625,000
8....	52,251,300	7,497,700	5,182,400	19,031,682	5,764,000	6,137,000
15....	52,068,748	7,559,698	5,291,549	18,909,682	5,837,534	6,011,377
22....	51,999,451	7,235,531	5,163,492	19,029,251	5,934,007	6,057,699
29....	51,632,451	7,905,491	5,159,569	18,895,249	5,804,569	5,925,462

	Loans.	Specie.	Circulation.	Deposits.	Due to banks.	Due from banks.
April 5....	51,918,000	8,259,500	5,477,500	20,136,400	6,576,900	6,386,000
12....	52,042,428	8,505,312	5,852,991	20,675,028	5,987,725	6,590,350
19....	51,752,500	9,007,000	6,224,500	20,657,500	6,110,000	7,259,400
26....	51,388,977	8,851,719	6,007,628	20,671,569	5,884,533	7,363,702
May 4....	51,499,700	9,248,000	5,903,600	21,257,900	5,925,900	7,444,000
10....	51,679,315	9,351,861	6,165,768	21,143,973	5,949,986	7,562,885
18....	52,622,000	9,210,000	6,117,000	21,527,700	7,187,800	6,263,000
25....	53,396,741	9,015,146	6,096,417	21,418,578	7,175,486	6,756,792
31....	53,469,179	9,120,846	5,908,020	20,846,860	6,530,828	6,929,062
June 7....	53,407,693	9,315,086	5,870,808	20,668,087	7,265,607	6,399,061
14....	53,951,032	9,410,569	5,732,900	20,815,560	7,532,900	5,755,268
21....	54,162,119	9,457,831	5,703,699	20,764,739	7,804,896	5,809,542
28....	54,780,644	9,119,604	5,633,176	20,833,942	7,827,075	5,674,795
July 5....	55,808,453	9,104,461	6,313,049	21,570,803	8,089,162	6,357,413
12....	56,200,929	9,000,663	6,538,325	21,075,247	8,526,510	6,299,019
19....	56,626,264	8,930,757	6,236,698	21,462,437	8,565,647	6,023,415
26....	56,602,469	8,943,004	6,268,745	21,456,471	8,658,185	6,268,745
Aug. 2....	56,250,500	8,883,400	5,869,800	21,161,000	8,467,000	5,757,000
9....	56,096,805	8,985,526	6,238,221	21,051,519	8,445,734	6,112,023
16....	55,971,072	8,795,945	6,026,818	20,804,875	8,132,356	5,675,367
23....	55,845,271	8,958,280	5,988,995	20,698,794	7,693,989	5,599,457
30....	55,650,350	8,724,186	5,889,477	20,698,228	7,537,728	5,952,844
Sept. 6 ...	55,926,042	8,701,679	6,137,981	20,971,188	7,632,562	6,287,397
13....	56,238,615	8,589,825	6,265,577	20,634,771	7,837,548	6,267,769
20....	56,414,497	8,432,250	6,265,814	20,799,474	7,932,082	6,493,886
27....	56,410,258	8,378,564	6,155,136	21,003,583	7,728,766	6,565,208
Oct. 4....	56,226,344	8,593,378	6,415,799	21,561,424	7,572,434	7,064,285
11....	55,993,810	8,601,982	6,950,324	21,940,062	7,797,659	7,841,109
18....	55,940,039	8,692,225	6,674,737	22,303,433	7,653,858	7,474,187
25....	55,857,618	8,940,572	6,505,858	22,435,359	7,836,100	7,470,666
Nov. 1....	55,601,573	9,098,907	6,402,222	22,538,477	7,583,069	7,348,934
8....	55,817,151	9,258,452	6,735,124	22,816,263	7,435,690	7,472,200

WEEKLY AVERAGE OF THE PHILADELPHIA BANKS.

Date.	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Jan. 11,'58.	$21,302,374	$3,770,701	$1,011,033	$11,465,263	4,453,304
Jan. 18....	21,068,652	4,018,295	1,046,545	11,512,765	4,349,676
Jan. 25....	20,730,958	4,243,966	1,062,192	11,547,697	4,414,160
Feb. 1....	20,423,704	4,465,693	1,096,462	12,195 126	4,173,710
Feb. 8....	20,359,226	4,668,085	1,293,046	11,904,519	3,531,721
Feb. 15....	20,071,474	4,868,983	1,559,218	11,889,342	2,967,933
Feb. 22....	20,161,260	4,924,906	1,686,689	12,014,605	2,776,665
Mar. 1....	20,251,066	4,903,936	1,808,734	11,830,532	2,645,662
Mar. 9....	20,471,161	5,147,615	1,916,852	12,253,282	2,726,124
Mar. 16....	20,522,936	5,448,514	2,077,967	12,691,547	2,782,085
Mar. 23....	20,796,957	5,483,858	2,140,463	12,413,191	2,849,780
Mar. 30....	21,020,198	5,661,782	2,296,444	13,201,599	2,945,185
Apr. 6....	21,657,152	5,937,595	2,647,399	13,422,318	3,056,181
Apr. 12....	21,656,028	6 133,000	2,675,193	13,784,656	3,178,855
Apr. 19....	21,776,667	6,382,485	2,484,150	14,682,175	3,071,603
Apr. 26....	22,141,300	6,752,640	2,408,421	15,068,178	2,804,095
May 3....	22,243,824	7,027,712	2,329,617	15,589,713	2,610,000
May 10....	22,190,934	7,143,628	2,406,482	15,260,858	2,754,973
May 17....	22,592,841	7,019,204	2,351,709	15,548,237	3,055,076
May 24....	22,969,576	6,963,371	2,410,181	15,354,428	3,221,858
May 31....	23,103,418	7,031,756	2,436,527	15,726,640	3,211,889
June 7....	23,542,751	6,985,208	2,406,568	15,776,251	3,380,477
June 14....	23,796,085	7,055,188	2,387,886	15,883,306	3,565 218
June 21....	23,803,903	6,873,971	2,365,435	15,857,904	3,504,300
June 28....	24,060,708	6,664,681	2,389,252	16,356,129	3,101,201
July 5....	24,311,928	6,835,877	2,431,181	16,566,846	2,986,297
July 12....	23,783,792	6,399,754	2,422,411	15,898,464	3,369,430
July 19....	24,555,873	6,868,596	2,548,945	16,937,535	3,351,204
July 26....	24,570,778	6,956,440	2,514,345	17,196,794	3,291,107

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
Aug. 2....	24,524,569	7,070,145	2,505,278	17,533,780	3,234,866
Aug. 9....	24,542,291	6,882,660	2,534,652	17,054,076	3,176,333
Aug. 16....	24,829,767	6,875,520	2,522,540	16,929,656	3,378,351
Aug. 23....	24,913,526	6,605,882	2,505,899	16,848,980	3,421,217
Aug. 30....	24,843,131	6,476,406	2,460,645	16,961,496	3,446,195
Sept. 4....	24,988,251	6,635,856	2,520,501	17,426,777	3,370,165
Sept. 13....	24,903,828	6,704,753	2,572,275	17,138,243	3,405,537
Sept. 20....	24,972,044	6,853,374	2,597,781	17,264,823	3,187,622
Sept. 27....	25,138,137	6,909,985	2,591,549	17,509,605	3,020,702
Oct. 4....	25,248,410	7,139,461	2,677,116	17,506,426	3,244,940
Oct. 11....	25,242,857	7,102,950	2,804,030	17,224,619	3,465,823
Oct. 18....	25,436,147	7,261,211	2,748,492	17,239,952	3,380,724
Oct. 25....	25,225,000	7,361,906	2,728,580	17,241,249	3,445,086
Nov. 1....	25,463,417	7,581,340	2,642,004	17,390,903	3,555,971

NEW ORLEANS BANKS.

	Short loans.	Specie.	Circulation.	Deposits.	Exchange.	Distant balances.
Oct. 17...	$19,200,583	$3,280,320	$6,196,459	$7,442,142	$2,297,348	$897,551
Dec. 12...	18,069,088	8,841,370	4,148,859	9,993,370	2,838,878	816,132
Jan. 2...	18,149,456	10,505,188	4,535,951	11,948,905	4,114,622	1,590,072
9...	14,878,404	10,626,260	4,778,539	11,754,593	4,675,028	1,349,781
16...	14,804,320	10,592,617	4,797,746	12,323,808	5,095,771	1,552,855
23...	14,559,131	10,693,330	4,767,816	12,573,178	5,201,868	1,459,861
30...	14,674,217	10,844,246	4,803,071	12,678,696	5,249,136	1,379,908
Feb. 6...	14,490,001	11,187,298	5,037,906	14,539,408	5,984,781	1,256,815
13...	14,937,307	11,110,763	5,100,916	14,368,835	6,624,657	1,283,609
20. .	14,890,351	11,065,597	5,254,181	14,640,976	7,124,477	1,274,034
27...	15,062,058	11,061,832	5,524,209	14,894,714	7,623,252	1,327,750
March 6...	15,832,181	10,967,225	6,005,769	15,201,909	7,919,605	1,378,846
13...	15,888,847	10,978,759	6,299,957	15,421,499	8,220,000	1,347,623
20...	15,937,924	10,897,866	6,654,434	15,765,084	8,776,621	1,172,552
27...	16,157,998	10,947,636	7,068,240	15,792,554	8,880,798	1,271,084
April 3...	16,641,554	10,848,605	7,572,094	15,453,850	9,147,709	1,664,614
10...	16,481,249	10,962,570	7,692,634	15,658,182	9,321,352	1,410,349
17...	16,480,547	10,854,012	7,685,539	15,640,948	9,035,522	1,381,527
24...	16,094,721	10,798,455	7,828,399	15,589,151	9,221,277	1,473,994
May 1...	15,933,046	10,892,453	7,945,334	16,681,593	8,754,140	1,263,882
8...	15,459,435	10,615,530	8,023,429	16,386,529	9,159,848	1,112,188
15...	14,958,401	10,478,675	7,972,599	15,035,182	9,418,151	1,429,660
22...	14,772,173	10,394,638	7,954,829	15,096,528	9,184,271	1,266,140
29...	14,250,529	10,299,135	7,916,858	14,648,164	8,899,170	1,368,531
June 5...	13,521,534	10,257,171	7,965,484	16,007,939	8,269,260	1,102,648
12...	12,823,721	10,312,237	7,943,819	15,464,347	8,533,964	1,009,370
19...	12,374,123	10,208,900	7,645,844	15,714,302	8,720,257	1,119,317
26...	12,390,984	10,423,080	7,323,034	15,676,134	8,110,788	1,084,117
July 3...	12,291,555	10,676,674	7,962,959	16,013,100	7,890,863	1,061,242
10...	12,116,486	10,755,126	7,671,824	14,114,217	6,970,157	1,192,675
17...	11,981,985	10,877,768	7,452,104	14,078,294	7,427,930	1,244,218
24...	11,985,231	10,936,870	7,334,414	13,864,925	6,348,192	1,336,398
31...	12,011,616	10,992,148	7,231,739	15,262,178	6,053,229	1,402,012
Aug. 7...	12,452,664	10,885,005	7,135,389	15,200,271	5,844,132	1,547,831
14...	12,883,216	10,912,975	7,024,587	13,564,756	5,263,035	1,327,951
21...	13,516,161	10,806,910	6,860,289	13,164,598	4,652,889	1,258,843
28...	14,196,661	11,173,021	6,731,599	13,343,938	4,081,875	1,185,562
Sept. 4...	14,392,969	11,285,308	6,828,889	14,636,311	3,853,526	1,139,616
11...	15,323,750	11,621,848	6,853,324	13,684,268	3,855,010	1,220,262
18...	16,121,809	11,804,474	6,704,604	13,682,634	3,654,192	993,280
25...	16,864,950	11,299,625	6,638,594	13,931,777	3,890,649	1,120,727
Oct. 4...	17,470,301	11,163,318	6,722,197	16,161,514	4,899,449	1,226,565
9...	17,689,981	11,317,465	6,802,860	15,378,011	5,657,057	1,351,648
16...	17,988,170	11,473,772	6,902,184	15,647,690	6,165,398	1,556,595
23...	18,266,049	11,678,670	7,004,259	16,181,041	6,775,262	1,694,868
30...	18,545,880	12,177,863	6,985,839	17,315,282	7,415,987	1,840,370

PITTSBURG BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due banks.
April 12	$5,513,821	$1,194,232	$1,287,095	$1,305,294	$70,236
19	5,570,585	1,220,633	1,291,091	1,345,062	87,713
26	5,611,689	1,221,195	1,319,416	1,404,750	84,171
May 3	5,784,492	1,192,216	1,360,551	1,504,549	40,312
10	5,763,651	1,171,627	1,365,551	1,585,182	74,491
17	5,737,072	1,191,663	1,373,401	1,491,620	111,260
24	5,769,868	1,175,334	1,371,586	1,464,767	124,044
31	5,843,108	1,212,178	1,394,146	1,467,849	88,896
June 7	5,895,461	1,207,637	1,426,586	1,540,926	90,334
14	5,865,951	1,218,342	1,385,926	1,556,862	108,994
21	5,836,952	1,223,759	1,366,481	1,571,589	134,480
28	5,874,782	1,266,195	1,377,096	1,630,570	125,748
July 5	6,014,676	1,246,588	1,436,651	1,699,196	85,698
12	6,016,509	1,229,383	1,458,776	1,691,758	157,608
19	6,016,404	1,249,398	1,475,351	1,720,691	165,257
26	6,077,608	1,256,026	1,489,916	1,708,210	188,551
Aug. 2	6,009,453	1,198,767	1,423,669	1,730,650	188,242
7	5,975,321	1,236,485	1,378,231	1,788,792	186,835
14	5,940,451	1,257,921	1,428,856	1,818,617	57,411
21	5,953,828	1,266,621	1,452,751	1,887,579	182,413
28	6,008,461	1,257,173	1,435,516	1,884,917	181,392
Sept. 5	5,985,766	1,261,195	1,470,741	1,858,072	142,215
13	6,056,234	1,273,341	1,456,763	1,916,852	162,709
20	6,089,536	1,272,874	1,495,741	1,842,590	159,734
27	6,054,505	1,302,584	1,506,073	1,835,375	178,532
Oct. 4	6,096,979	1,445,575	1,540,098	1,908,049	138,940
11	6,084,370	1,481,217	1,515,198	1,913,592	124,605
18	6,075,227	1,571,879	1,540,453	1,878,953	154,592
25	6,059,315	1,543,958	1,578,523	1,940,501	179,738
Nov. 1	6,039,272	1,324,219	1,525,723	1,924,691	168,676
8	6,075,888	1,322,359	1,554,168	1,985,183	188,122

ST. LOUIS BANKS.

	Exchange.	Circulation.	Specie.
April 10	$1,255,694	$1,788,970	$1,673,628
17	1,161,065	1,793,945	1,720,728
24	1,250,295	1,832,915	1,770,882
May 8	1,369,316	1,240,431	1,959,823
15	1,494,025	1,864,960	2,161,503
22	1,547,938	1,825,810	2,225,285
29	1,543,531	1,921,475	2,396,027
June 5	1,557,119	2,087,890	2,452,141
12	1,471,190	2,101,405	2,536,707
19	1,459,735	2,161,985	2,465,372
26	1,417,340	2,005,505	2,434,398
July 3	1,523,179	2,246,835	2,320,758
10	1,445,704	2,260,560	2,315,635
17	1,490,876	2,190,955	2,322,245
24	1,494,116	2,161,370	2,238,498
31	1,487,256	2,159,540	2,169,387
Aug. 7	1,581,723	2,079,225	2,108,988
14	1,609,067	1,982,160	2,081,197
21	1,695,299	1,882,625	2,026,841
28	1,766,798	1,943,735	2,043,788
Sept. 4	1,734,169	1,975,760	1,995,312
11	1,848,603	1,928,710	1,885,317
18	1,970,955	1,650,430	1,708,042
25	2,033,244	1,525,180	1,668,182
Oct. 4	2,016 967	1,452,893	1,736,080
9	2,696,873	1,463,690	1,596,531
16	2,198,824	1,398,925	1,549,076
23	2,179,916	1,556,780	1,522,221
30	2,141,285	1,515,975	1,689,802
Nov. 6	2,156,499	1,561,025	1,671,161

PROVIDENCE BANKS.

	Loans.	Specie.	Circulation.	Deposits.	Due oth. b'ks
Jan. 11.....	$17,701,725	$565,553	$1,552,822	$2,025,956	$1,338,485
Mar. 15.....	16,925,349	520,828	1,310,787	1,903,082	1,048,930
Apr. 5.....	17,037,949	591 861	1,409,695	1,946,998	1,080,817
19.....	17,169,822	564,033	1,488,226	1,965,316	996,961
May 3.....	17,203,225	566.869	1,393,553	2,068,335	1,089,333
17.....	17,054,877	567,024	1,451,356	2,062,597	1,131,176
June 7.....	17,060,695	577,863	1,535,717	2,088,873	1,208,543
June 21.....	17,345,487	573,317	1,604,850	1,988,496	1,170,711
July 5.....	17,653,908	523,691	1,810,047	2,402,956	1,010,101
July 19.....	17,8-7,068	466,266	2,039,911	2,079,183	1,145,864
Aug. 2.....	17,780,220	444,165	1,921,812	2,022,092	1,095,396
Sept. 6.....	17,121,639	175,635	1,420,455	935,593	958,242
Oct. 4.....	17,685,831	414,331	1,898,902	2,100,328	893,863
Nov. 1.....	17,784,851	435,854	1,920,530	2,339,930	1,068,233

PROGRESS OF WEALTH IN CONNECTICUT.

The New Haven *News* remarks:—By comparison of the grand lists of 1847 and 1857, a period of ten years, we learn that the increase has been for—

	1847.	1857.	Inc'se p. ct.		1847.	1857.	Inc'se p. ct.
The State...	$4,427,589	$7,165,658	60	New London ..	$76,437	$181,591	138
N. Haven Co.	735,756	1,511,862	105	Hartford, etc...	274,987	632,440	130
Fairfield Co..	693,153	1,245,562	80	Norwalk	43,402	99,226	129
Hartford Co..	920,181	1,491,297	62	Winchester....	26.236	59,404	126
N. London Co.	596,327	946,912	59	N. Britain, etc..	47,119	99,970	112
Middlesex Co	332,573	470,963	42	Groton	30,894	65,273	111
Litchfield Co.	584,322	782,948	34	Darien.....	15,938	30,839	94
Tolland Co..	220,900	291,757	32	Westport	32.316	61,923	92
Windham Co.	344,407	424,357	23	Vernon.....	23,074	44,154	91
Waterbury..	33,343	155,437	366	Portland	36,163	66,494	84
Meriden	31,217	94,132	202	Saybrook, etc..	38,175	70,208	84
Stamford ...	40,689	122,159	200	Fairfield.....	54,151	96,890	78
Bridgeport...	84,431	239,959	184	Enfield.....	46,034	80,963	76
Naugatuck...	13,692	38,227	179	Reading.....	23,459	39,631	69
New Haven..	257,422	670,032	160	Danbury, etc...	71,938	119,224	66
Derby, etc...	35,091	90,895	159	Plymouth.....	30,044	48,800	63
Stonington...	50,798	124,776	146				

Greenwich, New Canaan, Stratford, Norwich, New Hartford, and Stafford have increased from fifty to sixty per cent. Ashford, Bristol, Canaan, Canton, East Haven, Killingly, Madison, Middletown, Salisbury, Windsor, and Windsor Locks have increased about fifty per cent.

The following have decreased:—Bloomfield, Canterbury, Franklin, Hampton, Harwinton, Monroe, North Branford, Preston, and Westbrook.

LOSSES BY BANK FAILURES IN GREAT BRITAIN.

	Public.	Shareholders.	Total.		Public.	Shareholders.	Total.
1836..	388,000	1,000,000	1,388,000	1849..	400,000	800,000	1,200,000
1837..	1,100,000	130,000	1,230,000	1850..	18,498	1,590,000	1,608,498
1840..	1,179,972	1,270,000	2,449,972	1851..	350,128	700,000	1,050,128
1841..	926,000	474,000	1,400,000	1852..	.....	80,000	80,000
1842..	162,397	1,626,125	1,788,522	1855..	910,864	160,000	1,070,864
1844..	107,000	70,000	177,000	1856..	723,375	586.000	1,309,375
1845..	35.500	170,000	205,500	1857..	818,000	6,871,632	7,689,632
1846..	113,625	278,000	391,625				
1847..	1,170,000	1,466,709	2,636,709	Total.	8,480,359	18,522,466	27,002,825
1848..	77,000	1,250,000	1,327,000				

BANKS OF NEWARK, NEW JERSEY.

The following is a comparison of the statement of the Newark, New Jersey, banks, for October 1, 1857 and 1858 :—

LIABILITIES.

	October, 1858.	October, 1857.
Capital	$1,858,650 00	$1,828,650 00
Circulation	734,871 00	588,882 00
Due depositors	1,526,799 29	1,054,070 90
Dividends unpaid	28,581 68	21,961 88
Due other banks	331,711 20	259,718 10
Surplus	384,565 62	348,681 63
Total	$4,865,178 74	$4,131,964 51

ASSETS.

Specie	$175,546 27	$165,983 77
Due from other banks	379,842 05	363,130 86
Notes, etc., of other banks	109,831 64	152,323 50
Real estate	88,442 88	66,806 68
Other assets	21,487 50	25,564 78
Notes discounted, good	4,089,670 50	3,358,154 92
" doubtful	358 50	.....
Total	$4,865,178 74	$4,131,964 51

LIABILITIES AND ASSETS COMPARED.

Total liabilities	$2,641,963 12	$1,924,632 88
Cash resources	$685,707 46	$707,002 91
Bills discounted, good	4,089,670 50	3,358,154 92
Real estate, etc	88,442 28	66,806 68
Total resources	$4,863,920 24	$4,131,964 51
Increase of liabilities of October, 1858, over October, 1857		$717,330 24
Increase of assets		731,955 73
Increase of discounts		731,515 58

ST. LOUIS VALUATION AND TAX.

The valuation of property and assessment of taxes in the city are just completed, and from the returns in the Auditor's office we are courteously furnished the following results :—

Value of lots	$53,395,873
" improvements	17,941,427
" machinery	1,010,155
" money	876,902
" stock in banks, railroads, and steamboats	4,658,144
" notes, bonds, and bills	2,014,076
" negro slaves (929)	456,655
" horses and mules	449,680
" cattle	58,356
" carriages	114,250
" furniture and pianos	918,883
" libraries	17,150
" gold and silver plate	57,393
" clocks and watches	188,095
Total value	$82,160,449
Total tax assessed	756,150

DEBT OF THE CITY OF ALTON, ILLINOIS.

The Mayor of Alton, Illinois, in his message, gives the following account of the finances:—

Estimated receipts for year	$56,650
Estimated payments	49,472
Balance	$6,178

STATEMENT OF AMOUNT OF BONDS OUTSTANDING.

	Amount.	Interest.
10 bonds issued on account of Alton and St. Louis Railroad, and not exchanged	$10,000 00	.....
107 bonds issued and exchanged for old Alton and St. Louis Railroad bonds, and for funded interest due 1876	103,700 00	$6,822 00
Bonds issued on account of Terre Haute and Alton Railroad	100,000 00	6,000 00
Due September 13, 1858—bonds issued for purchase of cemetery and poor-house land	2,840 18	284 00
Due May 1, 1859—bonds issued to A. W. Long for improvement of Ninth-street	344 00	41 28
Due May 1, 1859—bonds issued for grading of Henry-street	1,000 00	80 00
Due May 1, 1859—bonds issued on account of grading Alby-street	961 18	76 89
Due January 1, 1861—bonds issued on account of grading Henry-street	1,003 60	80 28
Due May 1, 1861—bonds issued on account of grading Alby-street	961 18	76 89
Due January 1, 1860—bonds issued on account of City-hall and market-house	4,500 00	450 00
Due January 1, 1861—bonds issued on same account	2,000 00	200 00
Due January 1, 1862—bonds issued on same account	3,500 00	350 00
Total	$230,810 14	$14,461 34

TAXABLE PROPERTY OF SAN FRANCISCO.

The following is an official abstract from the Auditor's duplicate of the footings of the assessment books of the city and county of San Francisco for the current fiscal year, commencing on the 1st day of July, 1858:—

Real estate	$13,554,565
Improvements thereon	5,946,585
Personal property	11,224,800
Total assessments, 1858–59	$30,725,950
Total assessments, 1857–58	35,397,176
Decrease on the present year	$4,671,226

The rates of taxation, as well as the aggregate amount of the taxes to be collected on the foregoing assessments, are given in the subjoined table:—

	Rate.	Taxes.
For State purposes	$0 60	$184,852 70
For city and county expenses	1 25	384,074 87
Free common schools	0 35	107,540 82
Funded debt of 1851	0 63½	195,109 76
Funded debt of 1858	0 25	76,814 90
Total	$3 08½	$947,892 55

The collection of taxes commences on the third Monday in September, and they become delinquent on the third Monday in October.

CONDITION OF THE BANKS OF MAINE.

The following table represents the aggregate condition of the banks of Maine as they existed "on the afternoon of Saturday preceding the first Monday in September":—

Capital stock	$7,364,475 00
Bills in circulation	3,397,597 00
Deposits	2,522,597 24
Amount due to other banks	91,089 83
Specie	627,302 76
Loans	11,132,311 81
Amount due from other banks	1,662,568 55
Bills issued	9,712,899 00
Amount of unsigned bills on hand	3,661,812 00

DEBT OF TENNESSEE.

In the *Merchants' Magazine* for April, 1858, page 469, will be found the amount of bonds issued according to Governor Johnson's message. The Controller has made a report to October 1, 1858. A recapitulation of the debt is as follows:—

RECAPITULATION OF TENNESSEE DEBT.

1. Six per cents of State to railroad	$6,049,000
2. Indorsed six per cents of railroad	2,200,000
3. Indorsed six per cents of Memphis	350,000
4. Old debt of State:—	
For bank capital (self-supporting)	1,125,000
Internal improvements, &c.	2,940,000
Total of all obligations	$12,664,000

The nature of the debt is as follows:—

1. The regular six per cent coupon bonds of Tennessee, the same now dealt in at the New York Stock Exchange, run 40 years from date, and fall due from 1890 to 1896–7. They amount to $6,049,000, and are a loan upon 604 miles finished railway, within the State boundary, to the railway companies, and constitute a first and only mortgage lien, to the extent of $10,000 per mile. The primary obligation to pay the interest is upon the companies, but the State has made it her first duty to provide the interest with promptness, at the Merchants' Bank in New York, July 1 and January 1. The Bank of Tennessee is the fiscal agent for this purpose, and to collect in turn the interest from the railways. 2. The State has indorsed to certain other railways, finished and in operation, $2,200,000, 6 per cents, due in 1882–85, being the first and only mortgage lien upon 220 miles within the State. 3. The State, to enable the city of Memphis to aid the Little Rock Railroad Company to build thirty-five miles from the Mississippi River, immediately opposite the city, through the delta or swamp lands of Arkansas, has indorsed $350,000 six per cent city bonds due in 1885. The bonds constitute also a lien upon the road. Four year old or miscellaneous public debt is in $1,000,000 six per cents for capital in the Bank of Tennessee, due 1868. In $889,000 six per cents for the erection of the new capitol and the purchase of the Hermitage estate. In $125,000 five per cents for capital in Union Bank of Tennessee, due 1863. And in $2,051,000 five and five-and a-quarter per cents in aid of the old internal improvements of 1838–44, due 20 years from date.

The railways within the State are generally free of all other liens than the first mortgage on to the State. Five years after the aid is rendered they are bound to contribute two per cent a year of the principal by way of sinking fund. Of the remainder of this fund, the Controller writes, October 1, 1858:—

"It may not be improper to state that the year just closed is the first one of

operation, under the act of 1856, creating a sinking fund for the ultimate redemption of the bonds loaned to, or indorsed for, railroad companies. The act requires two per centum per annum of the bonds loaned or indorsed by the State to be paid into the treasury, after five years from their issuance or indorsement, as a sinking fund with which the Governor, Controller, and President of the Bank of Tennessee, as Commissioners, shall purchase the said bonds, and re-invest the accruing interest in like securities. All the railroads from which the 2 per centum was due have promptly met the calls, and the fund has been invested in forty-four State and indorsed bonds for $1,000 each. This promptness in the beginning, during a season of embarrassment, and when many of the roads were in an unfinished condition, augurs well for a system which will annually yield an increased and increasing fund that will, if adhered to, ultimately redeem all the bonds, issued or indorsed by the State, before their maturity. Whatever may have been thought as to the policy of undertaking, at once, so grand a system of internal improvements in Tennessee as we have in operation and in progress, there can be no doubt as to the wisdom of this measure. It requires the railroads to pay annually so small a per centum upon their indebtedness, or the State's for them, as will not embarrass them, but finally extinguish the whole of it before it becomes due, leaving the State without debt for these works, with her numerous lines of railroads traversing every important section of her territory, paid for, and with no tax upon the wealth or industry of her citizens to sustain them."

RESUMPTION OF CASH PAYMENTS BY THE NATIONAL BANK OF AUSTRIA.

The order to resume cash payments has caused much money pressure in Europe, and a raise in the rate of interest, with some distrust in Vienna. The following is the Imperial Decree for enforcing cash payment by the Austrian Bank:—

IMPERIAL DECREE OF AUGUST 30, 1858, VALID FOR ALL THE AUSTRIAN CROWN LANDS, WITH THE EXCEPTION OF THE LOMBARDO-VENETIAN KINGDOM.

As a preparatory measure to the complete realization of the Currency Convention of January 24, 1857,* and particularly of article 22 of the same, I, after having taken the counsel of my ministers, and having heard the opinion of my Council of the Empire, do ordain—

1. That from November 1, 1858, the privileged Austrian National Bank shall only issue notes of 1,000 florins, 100 florins, and 10 florins in (the new) Austrian currency. The bank, however, is at liberty to make use of such notes before the 1st of November, 1858.

2. The Austrian National Bank is bound, on the demand of possessors, to pay to them at all times the full value of notes in the new Austrian currency.

3. At least one-third of the notes in Austrian currency which may be in circulation must be covered (*bedeckt*) by means of lawful silver coin or silver ingots, or, under certain circumstances, and with the consent of my Minister of Finances, by gold coin or gold ingots. The remainder (of the notes) must be covered by means of legally discounted bills of exchange, or by stock on which advances have been made.

4. The notes in Austrian currency must not only be accepted at all the public treasuries—which privilege is secured to the notes of the National Bank by paragraph 1, of the patent of July, 1841—but every one will be bound to take them at their full nominal value in all cases in which payments are to be made in the Austrian currency.

5. In the same proportion as the Austrian National Bank issues notes in the Austrian currency it will draw in the notes in conventional currency which are now in circulation. In the mean time these latter are to be accepted in payment, (are to be legal tenders,) agreeably to paragraphs 10 and 13 of my patent of the 27th of April, 1858.

6. It is determined that the 1,000 florins in conventional currency shall be

* With the German States.

called in and cease to be in circulation by the 30th of June, 1859; the 100 and the 50 florin notes (C. C.) by the 31st of August, 1859, and the 10 florin notes (C. C.) by the 31st of October.

7. The 5, 2, and 1 florin notes in conventional currency are to be reduced to 100,000,000 florins as speedily as possible. The time at which they will be called in, and entirely withdrawn from circulation, will be fixed at a future period.

8. A committee of three bank directors—to be appointed by the Direction—and the Imperial Commissary will co-operate, and see that the instructions contained in paragraphs 3, 5, and 7 are strictly observed.

9. At the end of each month the amount of the different notes of the Austrian National Bank which may be in circulation is to be made public, as also the security for them (*bedeckung*,) of which mention is made in paragraph 3.

FRANCIS JOSEPH MAHERR.

BARON VON BRUCK.

BANKS OF SWITZERLAND IN 1857.

		When formed.	Capital, francs.	No. of shares.	Value, francs.
Bank in Zurich	Zurich	1837	6,000,000	6,000	4,000
Leu und Comp. Hypothekenbank	Zurich	1854	9,784,000	19,568	500
Cantonalbank von Bern	Bern	1833	3,500,000	....	....
Bank in Luzern*	Luzern	1857	125,000	250	2,000
Bank in Glarus	Glarus	1852	500,000	1,000	500
Bank Cantonale Fribourgeoise†	Freiburg	1850	1,000,000	1,350 250	500 100
Bank in Basel	Basel	1845	2,000,000	800	5,000
Basellandschaftl Hypothekenb'k‡	Liestal	1849	500,000	1,250	400
Bank in St. Gallen	St. Gallen	1837	3,063,540	3,000	1,060
Aargauische Bank§	Aarau	1855	2,000,000	10,000	200
Thurgauische Hypothekenbank	Frauenfeld	1851	1,500,000	3,000	500
Bank Cantonale Vaudoise‖	Lausanne	1846	2,900,000	2,500	580
" Neufchateloise	Neuenburg	1855	1,000,000	2,000	500
" du Commerce	Genf	1815	3,100,000	3,100	1,000
" de Geneve	Genf	....	2,000,000	2,000	1,000
Comptoir d'escompte	Genf	1855	1,500,000	1,500	1,000
Total capital			40,472,540		

	Bank note emission, francs.	Average circulation of notes, francs.	Reserve fund, francs.	Per cent of capital.	Div. p. ct.
Bank in Zurich	3,758,403½	2,169,629	297,000 00	4.95	6.
Leu und Comp. Hypothekenbank	.....	.....	989,692 86	10.11	5.
Cantonalbank von Bern	869,800	687,074	.....	.....	5.49
Bank in Luzern	250,000	115,050	625 00	0.50	5.
Bank in Glarus	750,000	527,000	23,000 00	4.60	8.
Bank Cantonale Fribourgeoise	304,560	267,623	47,080 95	4.70	7.60
Bank in Basel	1,500,000	714,452	79,496 81	4.	8.20
Basellandschaftl Hypothekenba'k	.....	.....	54,416 04	10.88	6.37
Bank in St. Gallen	2,205,850	1,637,508	308,878 69	10.08	6.88
Aargauische Bank	400,000	276,226	44,000 00	2.20	6.
Thurgauische Hypothekenbank	500,000	388,390	85,150 30	5.67	5.66
Bank Cantonale Vaudoise	3,000,000	2,415,871	438,240 87	14.60	8.
" Neufchateloise	2,000,000	1,105,590	13,600 00	1.36	6.60
" du Commerce	2,980,000	1,931,700	201,500 00	6.50	6.90
" de Geneve	1,510,000	900,000	55,013 90	2.75	7.
Comptoir d'escompte	.....	.....	98,563 50	6.53	7.66
Total	20,028,613½	13,136,113			

* Of the capital, 25 per cent paid in.
† The State holds 300,000 francs of the capital.
‡ Capital 4,000,000 francs; paid in 12½ per cent.
§ The capital has been increased 1,000 shares, not yet paid.
‖ Half of the capital belongs to the State.

FINANCES OF VERMONT.

The report of the Auditor of Accounts for the State of Vermont shows that the balance in the treasury on the first of September, 1858, was $30,643, and that the amount of taxes uncollected was $60,259, making together the sum of $90,891 as the immediate available resources of the State, and that the indebtedness of the State, including orders unpresented, the bank safety fund, and the sums due to towns for United States surplus money, was $143,904, exceeding the current available resources by the sum of $53,012. Of this condition of finances Governor HALL, in his message, says :—

It is to be observed that there has been expended in the construction of the new State House the sum of $61,127, and that but for this extraordinary expenditure, made necessary by the accidental destruction of the old edifice, the sum in the treasury and the assessed taxes would exceed the State indebtedness by about the sum of $8.000. The policy of the State from its first organization has been against the creation of a permanent State debt. Extraordinary and unexpected calls upon the treasury, like that now requiring the construction of a new capitol, have occasionally been provided for by temporary loans, but provision for their speedy payment has always heretofore been made. This policy has had a strong tendency to produce a judicious economy in our expenditures, and I trust is not to be departed from.

STATISTICS OF TRADE AND COMMERCE.

EXPORTS OF COTTON FROM THE UNITED STATES TO FOREIGN COUNTRIES.

The following table, showing the quantity and value of cotton wool, the product of the United States, exported to each foreign country during the years 1855, 1856, and 1857, has been compiled from the annual reports of the Secretary of the Treasury :—

	Exported, 1855.		Exported, 1856.		Exported, 1857.	
	Bales.	Value.	Bales.	Value.	Bales.	Value.
Great Britain.	1,533,143	$87,616,749	1,986,789	$85,179,143	1,474,199	$85,101,316
France.....	470,293	19,035,423	482,254	21,195,516	379,051	22,263,170
Spain	82,198	3,320,134	133,021	5,850,517	104,058	6,165,961
Bremen.....	53,648	2,020,438	103,054	4,238,497	71,165	4,356,418
Sardinia	33,536	1,288,387	39,747	1,596,757	36,794	1,967,522
Mexico.....	25,947	744,519	24,946	628,053	20,269	999,747
Austria.....	18,132	751,622	40,149	1,724,599	16,137	952,924
Hamburg	18,672	761,572	34,192	1,469,753	22,720	1,311,935
Swed. & Norw.	19,363	741,278	37,624	1,652,049	21,393	1,249,042
Belgium	28,858	1,042,434	50,279	2,198,060	24,218	1,420,035
Portugal.....	.....	.....	.....	.....	136	7,712
Holland.....	11,423	418,433	28,789	1,252,242	21,862	1,288,328
Russia.....	1,025	48,647	10,585	514,161	69,832	4,267,234
Prussia.....	. ...	.....	.....	.....	50	3,574
Two Sicilies...	111	4,804	5,060	238,213	1,275	71,806
Denmark.....	.....	.....	.....	.....	2,423	154,635
Other places..	8,363	349,414	17,716	644,761	.....	.....
Total.....	2,303,403	$88,143,854	2,991,175	128,382,351	2,265,558	131,575,859

Whole quantity exported in 1855.....lbs.	1,008,424,601	$88,143,844
" " 1856.....	1,351,431,827	128,382,351
" " 1857.....	1,048,281,475	131,575,859
Whole quantity in three years.....	8,408,137,903	$348,102,054

GENERAL STATISTICS OF THE WEST INDIES.

EXHIBITING THE AREA, POPULATION, COMMERCE, REVENUE, ETC., OF EACH GOVERNMENT FOR THE YEAR 1855. COMPILED FROM OFFICIAL AND OTHER AUTHENTIC SOURCES BY RICHARD S. FISHER.

AREA AND POPULATION.

Governments.		Area, sq. miles.	Population.	Pop. to sq. mile.	Capitals.	Population.
Hayti	Empire..	10,081	572,000	56.7	Port au Prince .	12,000
Dominica	Republic	17,609	136,700	7.7	Santo Domingo.	10,000
Cuba	Span. col.	47,278	1,449,462	30 6	Havana	126,000
Porto Rico	"	3,965	562,134	145.4	S. Juan Bautista	16,000
Bermudas	Brit. col..	20	11,092	554.6	St. Georgetown.	2,000
Bahamas	"	5,094	27,519	5.4	Nassau	8,000
Turk's Island*	"	430	4,428	10.3		
Jamaica†	"	6,510	378,193	58 1	Spanishtown	6,000
Trinidad	"	2,020	68,645	33.9	Puerto d'Espana	12,000
Tobago	"	144	13,208	91.7	Scarboro'	1,500
Granada‡	"	155	32,671	210.4	St. Georgetown.	2,000
St. Vincent	"	132	30,128	228.3	Kingstown	5,000
Barbadoes	"	166	135,939	818.9	Bridgetown	22,000
St. Lucia	"	296	24,516	82.8	Castries	3,000
Dominica	"	274	22,061	80.5	Roseau	5,600
Montserrat	"	47	7,653	162.9	Plymouth	1,500
Antigua	"	108	37,757	349.6	St. John's	15,000
St. Christopher	"	68	23,177	340.8	Basse-Terre	8,000
Nevis	"	21	9,601	457.2	Charlestown	2,000
Barbuda§	"	72	1,707	23.7		
Anguilla	"	34	3,052	90.9		
Virgin Islands	"	92	6,689	72.7	Tortola	3,000
Guadaloupe‖	Fren. col.	631	154,975	245.6	Basse-Terre	4,000
Martinique	"	382	121,478	318.0	St. Pierre	6,000
Curacoa¶	D'tch col.	244	22,063	90.4		
St. Eustatius	"	97	1,932	19.9	Wilhelmstadt	8,000
St. Martin** & Saba.	"	28	4,502	160.8		
St. Thomas	Dan. col..	27	13,666	506.1		
Santa Cruz	"	78	23,729	304.2	Christianstadt	6,000
St. John	"	22	2,228	101.3		
St. Bartholomew	Swe. col..	25	9,000	360.0	La Carenage	1,000
Total		96,050	3,911,905	40.7		

COMMERCE WITH THE UNITED STATES.

	1855.		1857.	
	Exports from United States.	Imports into United States.	Exports from United States.	Imports into United States.
Hayti	$2,081,338	$2,474,487	$2,581,664	$2,290,242
Dominica	163,714	141,038	44,819	109,274
Cuba	8,004,582	18,625,339	14,928,443	45,248,101
Porto Rico	1,188,518	2,475,998	1,935,474	5,748,600
British West Indies	5,021,143	1,518,670	5,084,916	2,653,698
French West Indies	409,701	44,434	781,143	59,689
Dutch West Indies	240,256	438,841	386,296	518,254
Danish West Indies	888,464	225,308	1,516,695	231,559
Swedish West Indies	69,247	32,229	79,933	12,082
Total	$18,061,963	$25,976,344	$27,233,883	$56,917,099

* Including the Caicos Islands.
† Including the Cayman Islands.
‡ Including the Granadines.
§ Belongs to the Codrington family, being the only British colony remaining in private hands.
‖ Including its dependencies Marie-Galante, Desirade, and the north part of St. Martin.
¶ Including Bonaire, Aruba, etc.
** South part of St Martin only belongs to Holland. The whole island has an area of 33 square miles and 6,612 inhabitants.

COMMERCE AND FINANCES.

	Exports.	Imports.	Revenue.	Expenditure.
Hayti	$6,318,159	$5,927,456	$1,136,800	$1,308,040
Dominica	1,827,362	1,391,266	374,516	291,116
Cuba	32,683,731	31,394,578	13,447,584	*13,447,584
Porto Rico	5,761,975	6,073,870	2,500,000	†2,500,000
Bermudas	167,816	601,939	79,253	81,941
Bahamas, Turk's Island	347,510	659,974	119,847	131,294
Jamaica	4,661,580	2,017,609	579,024	1,057,193
Trinidad	1,904,364	2,795,334	508,237	505,083
Tobago	248,769	261,534	40,070	40,070
Granada	691,986	562 051	105,438	90,221
St. Vincent	883,984	728,863	101,237	104,266
Barbadoes	4,729,249	1,886,792	389,389	358,401
St. Lucia	276,932	481,393	79,652	81,578
Dominica	390,773	262,541	53,272	64,437
Montserrat	72,574	44,814	16,096	15,941
Antigua	1,078,249	855,382	127,892	122,035
St. Christopher	665,444	539,826	106,434	106,434
Nevis	163,974	104,667	21,262	21,102
Anguilla		With St. Christopher.		
Virgin Islands	28,734	22,517	11,734	11,734
Guadaloupe	5,097,687	5,113,926	464,925	464,925
Martinique	4,126,792	3,981,715	364,434	363,434
Dutch West Indies	713,851	631,496	96,196	186,821
Danish West Indies	4,987,315	4,654,781	286,782	286,782
Swedish West Indies	217,151	257,311	†22,600	†22,600
Total	$78,045,761	$71,251,635	$21,032,674	$21,665,032

RECEIPTS OF TEXAS SUGAR AT GALVESTON.

The Galveston *Civilian* remarks :—

The rise and reverses of sugar production furnish a singular feature in the history of the planting interest of Texas. As our past reports show, the receipts of Texas sugar at this port in 1850 were within a fraction of 3,000 hhds. In 1854 and 1855 each, the amount was nearly 5,000 hhds. For the commercial year ending August 31, 1855, the amount was 5,375 hhds. For the year ending August 31, 1856, it was 7,570 hhds., while for 1857 it amounted to only 124. For the year just closed the amount is 505 hhds. and 41 tierces, with 3,626 bbls. molasses. A more striking instance of the almost entire destruction of a crop can scarcely be found. The prospect for the coming season is better; but the crop must still be far short of any from 1853 to 1856, inclusive. The receipts of Texas sugar and molasses at this port for the calendar years named below were as follows, the year ending December 31 :—

	Molasses, bbls.	Sugar, hhds.		Molasses, bbls.	Sugar, hhds.
1850	2,427	2,782	1855	6,628	4,731
1851	1,909	1,036	1856	....	7,570
1852	2,576	1,829	1857	....	124
1853	6,086	4,076	1858	3,626	505
1854	5,398	4,754			

The receipts at this port, however, were not the criterion of the whole crop, much of which was disposed of for home consumption in the markets of the interior. The entire crop of 1852–3 was 16,023 hhds.; that of 1853–4 was 9,873; that of 1855–6 was 7,512, and that of 1856–7 probably less than 500. For the year just over it does not exceed 800 hhds., while the prospect is again unfavorable.

* Including surplus sent to Spain. † Estimated.

UNITED STATES TRADE WITH RUSSIA.

GOODS IMPORTED IN AMERICAN AND FOREIGN VESSELS FROM THE UNITED STATES TO ST. PETERSBURG IN 1857.

AMERICAN VESSELS.

Where from.	No. vessels.	Tons.	Cotton, poods.	Sugar, poods.	Logwood, poods.	Fustic, poods.	Sapan-wood, poods.	Lignum vitæ, poods.
New York	3	1,768	30,166	....	41,862	2,773	1,575	....
Boston	4	2,094	14,076	3,204	53,109	....	1,260	2,085
Charleston	2	1,202	56,073	....	311	....	....	....
Savannah	2	1,182	53,443	....	.....	....	....	....
Mobile	5	4,410	177,327	....	.....	....	....	....
New Orleans	15	12,448	539,515	....	.....	....	....	....
Havana	2	904	.....	67,346	.....	....	....	....
England	2	930	ballast.		.....	....	....	....
Total	35	24,928	870,597	70,550	94,882	2,773	2,835	2,085

FOREIGN VESSELS.

New York	1	174	.....	....	7,059	1,203	....	....
Boston	1	188	105	....	6,456	....	2,550	628
Mobile	1	666	25,907	....	....	....	....	....
New Orleans	2	948	35,898	....	....	....	....	....
Grand total...	40	26,904	932,007	70,550	108,397	3,976	5,385	2,713

AMERICAN VESSELS.

Where from.	Mahog-any, poods.	Dyewood extract, poods.	Sarsa-parilla, poods.	Rice, poods.	Car wheels, poods.	Cigars, pieces.	Ma-chinery, cases.	Rosin, bbls.
New York	....	5,695	1,148	....	3,200	.....	8	....
Boston	7,058	444	1,586	....	4,336	.....	16	....
Charleston	....	....	....	4,054	....	.....	..	....
Havana	....	....	....	....	....	1,106,276	..	....
Total	7,058	6,139	2,734	4,054	7,536	1,106,276	24	....

FOREIGN VESSELS.

New York	....	8,126	554	1,328	1,388	.....	65	304
Boston	224	289	1,172	400	1,479	.....	14	....
Grand total...	7,282	14,554	4,457	5,782	10,403	1,106,276	103	304

In American Vessels.—From New York, 25 packages sundries; from Boston, 3 packages sundries, 53 indigo; from Mobile, 3 bags pecan-nuts; from Havana, 1 package sweetmeats.

In Foreign Vessels.—From New York, 7 packages sundries; from Boston, 630 poods lima-wood, 651 furniture-wood, and 4 packages sundries.

SPIRITS CONSUMED ANNUALLY IN GREAT BRITAIN.

The following statement shows the progress of the quantity charged at each period for the United Kingdom :—

	England.	Scotland.	Ireland.
1826.....galls.	7,407,204	3,988,788	6,834,868
1836.....	7,875,702	6,620,826	12,248,772
1846.....	9,179,530	6,975,091	7,952,076
1853.....	10,350,307	6,534,289	8,196,862
1854.....	10,889,611	6,553,239	8,440,734
1855.....	10,384,100	5,344,319	6,328,856
1856.....	9,343,549	7,175,939	6,781,068
1857.....	10,209,731	7,266,867	6,877,156

EXPORT OF BREADSTUFFS FROM THE UNITED STATES.

TO GREAT BRITAIN AND IRELAND.

	Flour, bbls.	Meal, bbls.	Wheat, bush.	Corn, bush.
New York	773,408	484	5,418,878	1,757,114
New Orleans	288,123	...	737,451	974,248
Philadelphia	84,286	123	165,642	376,954
Baltimore	96,995	...	213,076	251,268
Boston	3,683	...	.....	8,920
Other ports	54,411	...	128,597	3,920
Total, 1857-58	1,300,906	607	6,658,639	3,372,444
Total, 1856-57	863,179	686	7,567,001	4,793,134
Increase	437,727	...	.....	.....
Decrease	.....	79	908,362	1,420,690
Total year ending Sept. 1, 1858	1,300,906	607	6,658,639	3,372,444
" " 1857	863,179	686	7,567,001	4,793,134
" " 1856	1,665,552	8,721	7,939,955	7,060,821
" " 1855	170,329	5,536	317,713	6,843,242
" " 1854	1,824,920	40,660	5,918,317	6,215,936
" " 1853	1,618,060	683	5,543,460	1,517,087
" " 1852	1,444,640	1,810	2,712,120	1,576,749
" " 1851	1,581,702	5,553	1,528,908	2,368,860
" " 1850	463,460	6,086	463,015	4,873,446
" " 1849	1,118,316	86,058	1,091,385	12,729,626
" " 1848	183,533	105,350	251,622	4,581,367
" " 1847	3,150,689	847,280	4,015,134	17,298,744

TO THE CONTINENT.

	Flour, bbls.	Wheat, bush.	Corn, bush.	Rye, bush.
New York	126,186	237,953	10,818	13,100
Other ports to latest dates	176,914	152,475	6,030	.....
Total	303,100	390,428	16,848	13,100
" 1856-57	483,344	2,875,653	543,590	216,162
" 1855-56	748,408	2,610,079	282,083	1,975,478
" 1854-55	7,763	4,972	308,428	35,569

BRITISH AND FOREIGN SHIPPING AND EXPORTS.

The Shipowners' Society in their twenty-second report have supplied the following return of British and foreign vessels entered and cleared with cargoes. We have also added to these the declared value of British produce and manufactures exported in each year from 1849 to 1857, inclusive :—

	Entered.		Cleared.		Declared value
Years.	British, tons.	Foreign, tons.	British, tons.	Foreign, tons.	of British exports.
1849	4,390,375	1,680,894	3,762,182	1,667,726	£63,596,025.
1850	4,078,544	2,035,152	3,960,764	1,946,214	71,367,885
1851	4,388,245	2,599,988	4,147,007	2,336,137	74,448,722
1852	4,267,815	2,462,354	4,469,321	2,413,260	78,076,854
1853	4,513,207	3,284,343	4,551,498	3,032,113	98,933,781
1854	4,789,986	3,109,756	4,683,654	3,186,882	97,184,726
1855	4,174,082	2,844,386	5,036,926	3,311,788	95,688,085
1856	5,086,262	3,155,402	5,883,861	3,777,478	115,826,968
1857	5,427,534	3,304,272	6,208,724	4,130,850	122,155,237
Increase	23 p. ct.	156 p. ct.	65 p. ct.	147 p. ct.	92 p. ct.

IMPORTS OF DENMARK AND THE DUCHIES.

	1856.		1857.	
	Import.	Paid duty.	Import.	Paid duty.
Cotton.....lbs.	5,170,796	4.974,088	3,725,081	4,101,612
Cotton goods.....	2.901,680	2,910,868	2,453,432	2,543,237
Linen goods.....	2,756,839	2,303,559	2,478,420	2,179,735
Silks.....	125,651	133,723	105,812	109.962
Woolens.....	1,748,012	1,751,427	1,638,920	1,658,146
Coffee, raw and burnt.....	22,570,291	14,543,989	15,273,503	14,610,776
Sugar and molasses.....	43,626,120	45,845,139	50,322,640	45,816,101
Tea.....	755,751	778,180	615,244	796,976
Rice, rough and ground.....	14,179,346	9,400,273	11,184,201	9,188,671
Tobacco, raw and manufactured..	8,067,047	7,907,695	8,592,445	8,619,011
Salt, coarse and fine.....	18,375,453	18,302,660	18,761,839	17,661,009
All other.....tons	112,329	108,430	107,430	100,464
" .....lbs.	715,787	805,548	748,222	761.194
Wine in casks.....¼ casks	421,622	398,655	380,140	399,891
Wine in bottles.....No.	198,697	197,051	195,162	195,539
Brandy in casks.....¼ casks	472,639	370,946	325,232	359,845
Brandy in bottles.....No.	9,951	9,814	10,707	10,906
Looking-glasses.....	164,936	171,371	143,518	145,780
Bottles.....	54,487	54,537	49,508	51,358
All other glassware.....lbs.	3,198,134	2,947,955	2,496,988	2,804,546
Iron and ironware.....	92,067,908	84,270,858	87,175,398	85,889,039
Coal.....tons	2,813,451	2,390,012	2,922,969	2,541,280
Lumber.....cubic feet	10,181,675	10,171,542	9,133,211	9,000,941

TEA EXPORTS FROM CHINA TO UNITED STATES.

The following is a statement of the exports of tea from all the ports of China to the United States for the year to July 1 :—

	1858.	1857.	1856.
Young Hyson.....lbs.	11,384,842	11,552,184	16,812,200
Hyson.....	821,776	1,238,379	920,798
Hyson Skin.....	475,827	330,091	1,084,246
Twankay.....	1,168,145	1,114,450	1,632,207
Gunpowder.....	2,264,094	1,622,244	2,122,722
Imperial.....	1,892,902	1,520,373	1,786,400
Total green.....	18,005,586	17,386,821	24,358,574
Congou and Souchong.....	2,635,339	1,868,616	4,895,260
Powchong.....	35,362	94,400	288,809
Pekoe and Orange Pekoe.....	529,980	29,600	337,180
Oolong and Ningyong.....	8,531,971	5,919,959	9,756,055
Total black.....	11,732,682	7,913,575	15,277,304
Grand total.....	29,852,288	25,800,396	39,635,838
Arrived in United States..	.....	20,325,541	22,778,975

The discrepancy between the arrivals in the United States and the exports from China hither is considerable, and is accounted for in some cases by the landing of the teas at other places—South America and elsewhere—on the way, and that all the vessels cleared at the consular offices in China for the United States do not come here.

COMMERCE OF RICHMOND, VIRGINIA.

The following it a comparison of the value of the exports and imports during the first six months of each year mentioned :—

	Imports.	Exports.		Imports.	Exports.
1855.....	$102,142	$913,190	1857.....	$599,982	$1,696,747
1856.....	114,100	978,362	1858..... ...	279,627	1,801,954

VEGETABLE AND TRUCK TRADE OF NORFOLK, VA.

The accurate and accomplished clerk of the Merchants and Mechanics' Exchange has extracted from the shipping lists of the various steamers, and other authentic sources, the number of barrels, boxes, and baskets of peas, cucumber, beans, tomatoes, radishes, rhubarb, asparagus, apples, pears, peaches, &c., &c., and below we give the total exports to each market during the months of June, July, and August :—

	Packages.	Value.
New York	52,301	$183,053 50
Philadelphia	7,805	25,567 50
Baltimore	67,424	235,984 00
Richmond	1,565	5,477 50
Total	128,595	$450,082 50

The above packages are estimated at $3 50, which is a low figure, as the largest portion of the packages were barrels of cucumbers, radishes, potatoes, &c., which, in the early part of the season, commanded $6 to $10 each.

The above statement shows a very large amount shipped to Baltimore, and it is proper to remark that much of it went through to Philadelphia, Washington, and even as far as Cincinnati, via the former city. In addition to the above, there have been from 75,000 to 100,000 water-melons shipped hence to Northern ports during the season. It will be seen, by comparing the foregoing statement with that made last year, that this trade is very rapidly increasing. The total quantity shipped last year was 96,099 packages, valued at $336,346 50; we have, therefore, an increase this year in quantity of 32,496 packages, and in value of $113,736.

MERCHANDISE EXPORTED FROM THE PORT OF NORFOLK DURING THE MONTH OF SEPTEMBER, 1858, AS REPORTED ON THE BOOKS OF THE MERCHANTS AND MECHANICS' EXCHANGE.

COASTWISE.

	Quantity.	Value.		Quantity.	Value.
Apples, dried.....bush.	1,892	$3,845	Peas .....bush.	76	$112
Apple brandy ....bbls.	39	1,287	Rosin.....bbls.	148	508
Corn.....bush.	43,164	33,867	Tar.....	613	1,379
Cotton .....bales	288	14,400	Staves.....No.	40,000	1,800
Fish .....bbls.	109	436	Shingles.....	903,750	4,391
Flaxseed ....bush.	896	1,593	Spirits turpentine...bbls.	24	74
Flour.....bbls.	75	475	Wheat .....bush.	17,519	20,131
Peaches, dried....bush.	192	1,356			
Total					$85,454

FOREIGN.

Beef.....bbls.	24	$312	Staves .....No.	620,837	$19,008
Railroad cross-ties...No.	2,934	1,173	Splice blocks.....	1,000	500
Total					$20,993
Grand total.....					106,447

TEXAS COTTON.

The receipts of cotton at Houston and Galveston respectively were as follows, for the years ending September 1 :—

	Houston.	Galveston.		Houston.	Galveston.
1854 ..... bales	38,923	....	1857.....bales	46,220	71,899
1855.....	44,050	....	1858	68,453	119,827
1856....	47,008	....			

TRADE OF BENGAL.

The annual return of the commerce of Bengal has been published. It includes the mutiny year from beginning to end, from 1st May, 1857, to 30th April, 1858. The exports were :—

	1856–57.	1857–58.
Merchandise	£13,664,791	£13,381,049
Treasure	998,953	859,691
Total	£14,663,744	£14,240,740

Showing a decrease of £423,004 sterling. This decrease is entirely in the trade with Great Britain, France, and North America, the exports to Great Britain having, for instance, sunk from £4,666,563 to £3,895,866. The decrease has been principally in—

	1856–57.	1857–58.
Sugar	£1,662,499	£1,053,329
Cotton	211,562	104,442
Silk piece goods	317,494	202,379
Gunny	262,397	112,949
Mustard-seed	119,426	33,034

The total decrease, considering the circumstances of the year, is very small, but it would have been much greater but for one item. The export of opium, a government manufacture, has increased by nearly a million. We exported in—

1856–57 ..... £3,823,803 | 1857–58 ..... £4,746,082

Imports on the other hand have increased.

	1856–57.	1857–58.
Merchandise	£8,024,178	£7,407,424
Treasure	6,676,053	7,807,088
Total	£14,700,231	£15,214,512

COFFEE CROP OF BRAZIL.

The quantity of coffee exported from Rio de Janeiro, for the crop year 1857–58, was as follows, comparatively :—

CLEARANCES OF COFFEE DURING CROP YEAR 1857–58.

Months.	Totals.	United States.	Europe.	Elsewhere.
July	222,784	56,914	160,532	5,338
August	165,528	74,859	87,110	3,559
September	221,124	101,262	110,031	9,831
October	176,800	93,705	82,839	256
November	101,341	54,406	42,741	4,194
December	49,285	8,583	37,782	2,920
January	167,133	78,211	86,296	2,626
February	172,754	97,807	73,876	1,571
March	93,123	47,791	45,332	....
April	152,924	116,714	33,123	3,087
May	69,898	52,685	15,215	1,998
June	132,327	105,269	26,054	1,004
Total	1,725,031	887,706	800,931	36,384
1856–57	2,421,114	1,204,168	1,173,210	43,736
Decrease	696,093	316,462	372,279	7,352

The crops for some previous years were as follows :—

1855	2,409,099	1852	1,896,609
1854	1,987,632	1851	2,033,747
1853	1,687,663		

FLOUR INSPECTIONS IN VIRGINIA.

The following is a comparative statement of the number of packages (mostly barrels) of flour inspected at the prominent points in Virginia during the quarter ending September 30, and the same period of the two preceding years :—

	1856.	1857.	1858.
Richmond .....bbls.	150,120	170,246	185,856
Petersburg.....	34,692	19,242	15,928
Alexandria.....	22,162	19,141	22,417
Lynchburg	15,488	11,331	17,258
Fredericksburg.....	10,482	13,606	6,721
Falmouth.....	22,235	9,854	11,432
Norfolk	6,749	4,819	4,290
Total	261,878	248,239	263,901

COMMERCIAL REGULATIONS.

COTON AZOTIQUE, OR GUN COTTON.

TREASURY DEPARTMENT, August 5, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 26th ultimo, on the appeal of Mr. Victor Bishop from your decision assessing a duty of 24 per cent on an article imported by him, and described in the invoice as "coton azotique," under the classification in schedule C of the tariff of 1857 of "all manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed." The article in question is known in commerce as "gun cotton," which is understood to be cotton saturated with nitric and sulphuric acids, and used chiefly as a substitute for gunpowder in blasting, and to some extent also in phothography and surgery. It is contended by the appellant that it is a fulminate, and chargeable as such with a duty of 15 per cent, under the classification in schedule E of the tariff of 1857 of "fulminates or fulminating powders." This Department is clearly of opinion that gun cotton does not belong to the classification to which it was referred on the entry. It is not a manufacture composed wholly of cotton. The value of the article consists mainly in the chemical ingredients which it contains. It may be classed either as a fulminate, under the designations of "fulminates or fulminating powders," in schedule "E" of the tariff of 1857, or treated as an unenumerated article, and referred, under the provisions of the 20th section of the act of 1842, by similitude of use, to the classification of "fulminates or fulminating powders," or "gunpowder," embraced in that schedule. In either case it would be entitled to entry at a duty of 15 per cent. Your decision is therefore overruled, and the article in question will be held liable only to a duty of 15 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

TAMARINDS PRESERVED IN SUGAR.

TREASURY DEPARTMENT, August 28, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 5th instant, on the appeal of Messrs. J. C. Tyler & Co, from your assessment of duty at the rate of 30 per cent on an importation of "tamarinds preserved in sugar," under the classification in schedule "B" of the tariff of 1857 of "comfits, sweetmeats, or fruit preserved in sugar, brandy, or molasses," the importers claiming to enter them at a duty of 8 per cent, under the classification of "fruits, green, ripe, or dried." It appears from your report that the tamarinds were not, when imported, green, ripe, or dried merely, but were packed or preserved in sugar. They cannot, therefore, come within the classification of "fruits, green, ripe, or dried," in schedule G of the tariff, but are expressly provided for in schedule B, under the classification of "comfits, sweetmeats, or fruit preserved in sugar, brandy, or molasses," and subject to duty at the rate of 30 per cent exacted by you in this case. Your decision is hereby affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

COTTON SOCKS WITH DYED TOPS.

TREASURY DEPARTMENT, August 28, 1858.

SIR :—This Department has had under consideration the appeal of Messrs. J. M. Davis & Co. from your decision assessing duty at the rate of 24 per cent on certain articles described as "cotton socks with dyed tops," under the classification in schedule C of the tariff of 1857, of "all manufactures composed wholly of cotton which are bleached, printed, painted, or dyed." The articles in question are composed wholly of cotton, and unbleached, a portion only of about half inch in width around the top being colored. This narrow stripe or band is understood to be a "trade mark" of the importers, for whom the socks are manufactured, indicating the weight by its color; and the question arises whether by reason of this colored stripe the articles in question should be considered as "dyed" within the meaning of the provision in schedule C, to which they were referred by you on the entry. The Department is clearly of the opinion that they should not be so considered. They are known in the trade as "brown or unbleached hosiery." The slight portion colored, not as a finish or ornament, but as a mere mercantile mark, cannot be held so to affect the character or quality of the article as to constitute the hosiery "dyed" within the true intent and spirit of the law. Your decision is, therefore, overruled, and the articles in question will be regarded as falling within the classification in schedule "E," of "caps, gloves, leggings, mits, socks, stockings, wove shirts and drawers, made on frames, composed wholly of cotton, worn by men, women, and children," and be subject to duty at the rate of 15 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

SPRING STEEL.

TREASURY DEPARTMENT, September 10, 1858.

SIR :—This Department has had under consideration your report of the 12th ultimo on the appeal of Messrs. Naylor & Co. from your assessment of duty, at the rate of 15 per cent, under the classification of "steel, not otherwise provided for," in schedule E of the tariff of 1857, on an article described as "German spring steel," and which the importers claim to enter as "German steel," "in bars," at a duty of 12 per cent, under the classification in schedule F of "steel in bars, cast, sheer, or German." The steel in question is stated by the importers to be commonly known in the trade under the name of "spring steel," and is made by rolling or tilting blistered steel into bars of a size and form fitted for the manufacture of springs for coaches or other vehicles; and they allege that while it bears this name in the trade on account of the use for which it is intended, it belongs to the class referred to in schedule F as "German," and should, as such, be subjected to a duty of 12 per cent. If it be conceded that the steel in question was imported "in bars," its classification will still depend upon the further fact, whether, at the date of the enactment of the tariff of 1846, it was generally known and recognized in commerce as "German steel." From the most reliable information the Department has been able to obtain on the subject, it is of opinion that steel of the description of that now in question is not the article referred to in schedule F under the designation of "German," and that, whatever name it may now bear in trade, it was not known at the date of the passage of the tariff act of 1846 as "German steel." It cannot, therefore, be regarded as having been the intention of Congress to embrace it under that designation in the tariff. This view is strengthened by the result (in favor of the defendant) of the suit of Wilson, Hawkesworth, *et al.*, *vs.* Heman J. Redfield, in the United States Circuit Court for the southern district of New York, which involved, it is understood, a similar question, and in which, under the instructions of the court, the rate of duty to which the article was subject was made to depend on its commercial designation at the date of the enactment of the tariff of 1846. Your decision in this case, assessing a duty of 15 per cent, under the classification of "steel not otherwise provided for," in schedule E, is affirmed. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

AUGUSTUS SCHELL, Esq., Collector, New York.

"SHAVED SHINGLES."

TREASURY DEPARTMENT, September 30, 1858.

SIR :—I acknowledge the receipt of your report, under date of the 18th ultimo, on the appeal of John S. Farlow, Esq, from your assessment of duty on an importation of "shaved shingles," from Miramichi, New Brunswick. It appears to be understood, both by the appellant and yourself, that the articles in question are not exempted from duty by the reciprocity treaty with Great Britain, of the 5th of June, 1854. The only provision of the treaty which can be considered at all applicable to the case, is that exempting from duty "timber and lumber of all kinds, round, hewed, and sawed, unmanufactured in whole or in part." Shaved shingles being manufactured, and by other process than hewing or sawing, are not embraced within that provision. The appellant is understood to claim to enter the article as unenumerated, at a duty of 15 per cent, under the 1st section of the tariff act of 1857. Schedule C of the tariff of 1857 imposes a duty of 24 per cent on "manufactures of wood or of which wood is a component part, not otherwise provided for." "Shaved shingles" being manufactures of wood, and not being provided for in any other schedule of the tariff, fall, in the opinion of the Department, within that classification in schedule C, and were properly subjected by you to the duty of 24 per cent. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

"WALNUTS IN SALT AND WATER."

TREASURY DEPARTMENT, September 30, 1858.

SIR :—An appeal has been taken to this Department, by Messrs. William Underwood & Co., from your decision assessing duty at the rate of 24 per cent on an importation of "walnuts in salt and water," under the classification in schedule C of the tariff of 1857 of "capers, pickles, and sauces of all kinds, not otherwise provided for." The importer, it seems, claims to enter the articles in question as unenumerated, at a duty of 15 per cent, under the 1st section of that act. By reference to the decision of the Department, under date of the 30th of October, 1857, in the case of an importation of salted peppers from Cape Haytien, you will see what construction the Department gives to the terms "pickles" as used in schedule C. For the general reasons therein stated, applicable also to this case, the Department is of opinion that the articles in question should be classed as unenumerated, and charged with a duty of 15 per cent under the 1st section of the tariff act of 1857. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

"LIMES PRESERVED IN SALT AND WATER."

TREASURY DEPARTMENT, September 30, 1858.

SIR :—I acknowledge the receipt of your report of the 1st instant on the appeal of E. B. Freeman, Esq., from your decision assessing a duty of 24 per cent on an importation of "green limes preserved in salt and water," as "pickles," under the classification in schedule C of the tariff of 1857 of "capers, pickles, and sauces of all kinds, not otherwise provided for," the importer claiming to enter them at a duty of 8 per cent under the classification in schedule G of "fruits, green, ripe, or dried." The articles in question are not, in the condition in which they are imported, "pickles," within the meaning of that term as used in schedule C of the tariff of 1857, and their character is so far changed by their preservation in salt and water as to withdraw them from the classification in schedule G of "fruits, green, ripe, or dried." They should, in the opinion of the Department, be regarded as unenumerated, and charged with a duty of 15 per cent under the provisions of the 1st section of the tariff of 1857. I am, very respectfully,

HOWELL COBB, Secretary of the Treasury.

A. W. AUSTIN, Esq., Collector, Boston, Massachusetts.

NAUTICAL INTELLIGENCE.

ROCK OFF THE ENTRANCE TO PORTSMOUTH, N. H.

The following is a letter to the Secretary of the Treasury, communicating data for the position, and directions for clearing, a dangerous rock off the entrance to Portsmouth, N. H., developed by the examination of Lieut. Commanding ALEXANDER MURRAY, U. S. N., Assistant in the Coast Survey:—

COAST SURVEY STATION, BRIDDINGTON, ME., September 10, 1858.

SIR:—I have the honor to report the finding of a dangerous rock off the entrance to the harbor of Portsmouth, N. H., with as little as six-and-a-half feet of water on it at mean low tide. The rock is a part of Triangle Ledge, and was found on the 9th of August, by Lieut. Commanding Alexander Murray, U. S. N., Assistant in the Coast Survey, in the surveying steamer Bibb, that vessel striking with violence on it, as its position was not laid down on any known chart of the locality.

Lieut. Commanding Murray has furnished the following data for the geographical position of this danger to the navigation of the vicinity of the entrance to Portsmouth:—

"The monument on York Ledge bears north 29° 15′ east, distance 1¼ nautical mile.

"The light on Whale's Back bears south 78° west, distance 4 nautical miles.

"Boon Island is 6¼ nautical miles distant, and with Whale's Back on range, will nearly include the rock, it being 6° 30′ to the southward."

The report of Lieut. Commanding Murray contains also the following direction for clearing the rock:—

"After doubling the bell buoy off Boon Island, vessels should keep the Whale's Back open to the northward at least two points, until they pass the monument on York Ledge.

"The rock has 6½ feet water at mean low tide, and within a ship's length, 7 and 11 fathoms. It should be buoyed."

I would respectfully request the transmission of a copy of this communication to the Lighthouse Board, and authority to publish it from the Coast Survey Office, in the usual form as a notice to mariners. Very respectfully, yours,

A. D. BACHE, Superintendent U. S. Coast Survey.

HON. HOWELL COBB, Secretary of the Treasury.

ENTRANCE TO THE RIVER THAMES, PRINCES AND HORSE CHANNELS.

TRINITY-HOUSE, LONDON, 15th September, 1858.

Notice is hereby given, that the Girdler Spit buoy has been moved to a position midway between the Princes Channel light-vessel and the Girdler beacon, and now lies in 3½ fathoms at low water spring tides, with the following marks and compass bearings, viz.:—

Chislet Mill open west of George's Farm S. S. W. ½ W.; St. Peter's Church open west of a mill at the back of Margate S. S. E. ½ E.; North Tongue buoy S. E. by S.; Girdler beacon N. W. by W. Notice is also given, that it is intended in the course of the month of October to make the following changes in the buoys in the Horse Channel, viz.:—

The Gore Patch buoy will be taken away. The East Last buoy will be moved about 1¼ miles east of the West Last buoy, by which arrangement the three last buoys, and Margate Hook beacon, will be separated at equal distances. A red buoy will be placed on the Reculver Sand, which, with Margate Hook beacon, will form the eastern entrance to the Horse Channel. Further notice will be given when the above changes are effected. By order,

P. H. BERTHON, Secretary.

LIGHT-VESSEL OFF THE NORTH HINDER BANK, COAST OF HOLLAND.

The Minister of Marine at the Hague has given notice, that a light-vessel has been moored in 21 fathoms water in latitude 51° 36′ 40″ N., longitude 2° 34′ 25″ E., on the eastern side of the North Hinder Bank, and that on and after the 23d August, 1858, a fixed white light would be exhibited from her mainmast at an elevation of 40 feet above the sea, and visible in clear weather at the distance of about 11 miles. The light-vessel has two masts, and is colored red, with the words Noord-Hinder painted in large white letters on her sides. During the day a red ball will be hoisted at her mainmast head, and in thick foggy weather a bell will be struck every quarter of an hour, preceded and followed by strokes of a gong. Also, that a red buoy has been placed in 14 fathoms water, N. ¼ E. 2 miles from the light-vessel, with the word Hinder marked on it in white letters. Vessels of large draught are recommended to keep to the northward of this buoy, in order to avoid the shoal patches on the North Hinder. The bearings are magnetic. Variation 20° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, October 1, 1858.

BELL BEACON VESSEL OFF THE SCHOUWEN BANK, COAST OF HOLLAND.

The Minister of Marine at the Hague has given notice, that an iron bell beacon vessel has been placed in the position before occupied by a red conical buoy, near the northeast part of Schouwen Bank, off Brouwershaven Gat, coast of Holland. The beacon vessel is painted black, and has one mast, to which is secured a triangular framework extending fore and aft and athwart, having planks painted alternately black and white. On a black plank is the word Schouwen Bank, and on one of the white planks W. Schouwen, S. E., magnetic. A heavy bell, the sound of which serves as a warning by night or in foggy weather, is carried between screens at the mast head, at an elevation of 23 feet above the water, and the whole may be seen in clear weather from a distance of 8 miles. The beacon vessel lies in 14 fathoms at low water, in latitude 51° 47′ N., longitude 3° 27′ east of Greenwich, with Schouwen revolving light bearing S. E., and West Kapelle light S. by W. ½ W. All bearings are magnetic. Variation 20° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, September 28, 1858.

FIXED LIGHT AT PORT CUDILLERO—ATLANTIC, COAST OF SPAIN.

The Minister of Marine at Madrid has given notice, that on and after the 1st of August, 1858, a harbor light would be exhibited from the lighthouse recently erected on Rovallera Point, Port Cudillero, in the province of Oviedo, Bay of Biscay. The light is a fixed white light, placed at an elevation of 94 English feet above the level of the sea, and should be visible in ordinary weather from a distance of 10 miles. The illuminating apparatus is dioptric, or by lenses, of the fifth order. The lighthouse consists of a rectangular building with a tower rising from it, the whole being 14 feet high. The rectangular building is colored white, and the tower and lantern dark green. It stands in latitude 43° 36′ 10″ N.; longitude 6° 9′ 3″ west of Greenwich, according to the latest Spanish position given. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, September 25, 1858.

FOG SIGNALS ON BOARD UNITED STATES LIGHT-VESSELS.

Notice is hereby given, that on and after the 1st day of January, 1859, vessels approaching or passing light-vessels of the United States in foggy or thick weather, will be warned of their proximity by the alternate ringing of a bell and sounding of a fog horn on board of the light-vessel, at intervals not exceeding five minutes. By order of the Lighthouse Board.

THORNTON A. JENKINS, Secretary.

WASHINGTON, October 5, 1858.

TEMPORARY LIGHTS AT HOLYHEAD OLD HARBOR, WALES.

The Hydrographer of the British Admiralty has given notice, that on and after the 6th September, 1858, the outer end of the works of a new wooden jetty in course of construction at the entrance of the Old Harbor of Holyhead, will be indicated as they advance by two red lights, 20 feet apart, and each 5 feet above the level of the jetty. The work is to be extended in a N. E. direction from the Pier-head Lighthouse, and its entire length will be 500 feet. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, October 1, 1858.

LIGHTS AND FOG SIGNALS,

TO BE CARRIED AND USED BY SEA-GOING VESSELS OF FRANCE, TO PREVENT COLLISION.

Official notice respecting lights and fog signals, which are to be carried and used on and after the 1st day of October next, (1858,) by all sea-going vessels of France,* to prevent collision, having been published in *Le Moniteur de la Flotte*, the following translation of the decree and the prescribed regulations is published for the information of mariners. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, September 20, 1858.

(TRANSLATION.)

NAPOLEON, by the grace of God and the national will, Emperor of the French, to all present and to come, greeting:—

In view of the law of the 9th (13th) August, 1791; in view of article 225 of the commercial code; in view of the decree of 17th August, 1852; upon the recommendation of our Minister Secretary of State to the Department of Marine and Colonies; we have decreed and do decree as follows:—

ARTICLE 1. On and after the first day of October, 1858, sea-going vessels will be subjected to the following regulations; the object of which is to prevent collisions:—

REGULATIONS TO BE OBSERVED AND FOLLOWED AT ALL TIMES BETWEEN SUNSET AND SUNRISE.

ART. 2. SEC. 1. Steam vessels, when underway under steam, at sea, in roadsteads, or in ports, will carry the following lights:—

At the foremast-head, a white light, illuminating 225° of the horizon, visible on each side of the vessel from ahead to two points abaft the beam; on the starboard side, a green light, illuminating 112° 30′ of the horizon, visible from ahead to two points abaft the starboard beam; on the larboard (port) side, a red light, illuminating 112° 30′ of the horizon, visible from ahead to two points abaft the larboard (port) beam. The side lights are to be fitted with inboard screens projecting at least three feet forward from the light, so as to prevent the green light from being seen across the port bow, and the red light from being seen across the starboard bow.

SEC. 2. Sailing vessels and steamers not under steam, when underway under sail, or being towed, at sea, in roadsteads, or in ports, will carry the same lights as are prescribed for steam vessels under steam, except the white light at the foremast-head, which will not be shown.

ART. 3. Sailing pilot vessels will not be subjected to the arrangement and colors of lights prescribed by the preceding article; but they will be distinguished by a permanent white light, visible around the whole horizon, hoisted at the mainmast-head; and by a white light, equally visible around the whole horizon, which will be shown for a few minutes once in every quarter of an hour.

ART. 4. Sailing vessels, as well as steamers, while anchored in a roadstead, in a channel, or in a line of passing vessels, will carry a white light, visible around the whole horizon, placed in the best possible position for being seen, but at a height not exceeding six metres (about 20 feet) above the deck.

*NOTE.—See regulations of similar import for all sea-going vessels of Great Britain and of the Netherlands.

ART. 5. The distances from which the different lights specified in the preceding articles should be visible on a dark night with a clear atmosphere, (free from fog,) should not be less than the following :—

White light at the foremast-head of steamers underway under steam, five nautical miles. Green and red lights, two nautical miles. White light of vessels at anchor, one nautical mile.

REGULATIONS TO BE OBSERVED AND FOLLOWED DURING FOGS, BOTH BY DAY AND NIGHT.

ART. 6. During fogs, by day as well as by night, vessels when underway at sea, in roadsteads, and in ports, will make the following signals once in every five minutes, or oftener :—

SEC. 1. Steam vessels underway under steam, will sound a steam whistle, which must be placed in front of the funnel at a height of not less than 2 m. 40 (about eight feet) above the deck.

SEC. 2. Sailing vessels and steamers underway under sail, or being towed, when on the starboard tack, will blow a fog horn ; when on the larboard (port) tack, will ring a bell.

DEVIATIONS FROM THE FOREGOING REGULATIONS ALLOWED TO SMALL SAILING VESSELS.

ART. 7. Small sailing vessels with gunwales too low to have the side lights permanently fixed and visible at all times, shall nevertheless have lights constantly lighted in colored lanterns, from sunset to sunrise, and kept on deck on the side of the vessel to which they belong according to color, ready to be shown to any approaching vessel. These hand lanterns, when exhibited, must be held so as to show the light to the best advantage, and in such a manner as to prevent the green light from being seen across the port bow, and the red light from being seen across the starboard bow. To insure the certain application of these regulations, the lanterns will be painted the color of the lights to be exhibited from them, and fitted to screens of as great length as possible. Besides the screens to be held fore and aft of the vessels, the following indication will be marked on the back :—

Green light	Forward.
	Starboard.
Red light	Forward.
	Port.

ART. 8. The lights indicated in the preceding article will not be required to have the range prescribed by article five for the fixed lights.

ART. 9. This decree abrogates, on and after the 1st day of October, 1858, the decree of the 17th August, 1852, relating to the exhibition of lights at night by steamers and sailing vessels.

ART. 10. Our Minister Secretary of State to the Department of Marine and Colonies, is charged with the execution of this decree, which will be inserted in the *Bulletin of the Laws.*

Done at the Palace of Fontainebleau, the 28th May, 1858.

NAPOLEON.

By the Emperor :—The Admiral, Minister Secretary of State to the Depart- of Marine and Colonies.

HAMELIN.

MAPLIN SAND—ENGLAND, EAST COAST.

BEACONS FOR MEASURED MILE.

Official information has been received at this office, that the Lords Commissioners of the Admiralty of Great Britain having caused four beacons, each distinguished by a triangular head, to be erected on the southern edge of the Maplin Sand, within or to the W. N. W. of the black can buoy on the Black Tail spit, for the purpose of testing the speed of H. M. steamers ; it is therefore requested that mariners in charge of passing vessels will carefully avoid collision with these beacons, and any person who may be found willfully injurin g

them will be prosecuted as the law directs. The beacons are placed on E. ¼ N. and W. ¼ S. lines of bearing, a third of a mile apart, and are distant from each other 6,085 feet, or one geographical mile. The eastern beacons bear respectively from the Mouse light-vessel W. N. W. ¼ W. 2¼ miles, and W. N. W. ¼ N. 2¼ miles; and the western beacons bear from the Nore light-vessel E. N. E. ¼ E. 4¼ miles, and E. N. E. ¼ E. 4¼ miles. All bearings are magnetic. Variation 21¼° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, October 1, 1858.

ROCK OFF LUNDY ISLAND—ENGLAND, WEST COAST.

The Hydrographer of the Admiralty of Great Britain has issued the following notice:—

"A detached rock, named the Lee Rock, lying off the south end of Lundy Island, in the entrance of the Bristol Channel, not being generally known, (although nearly in the direct track of vessels rounding the island to seek its protection in westerly gales,) the following information is published for the benefit of the mariner:—

"The rock, which has a depth of 9 feet over it at low water, and the weeds upon it exposed during a heavy sea or ground swell, lies nearly under Morisco Castle, with the Black Rock, off Shutter Point, W. N. W. 7 cables' lengths, and the southeast extremity of Rat Island N. E. by E. one-third of a mile.

"CAUTION.—The mariner is cautioned to give the south end of the island a berth of half a mile, nearly, when rounding it to enter Lundy Road, so as to avoid this danger." By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, September 25, 1858.

LIGHT-VESSEL OFF HANDKERCHIEF SHOALS—VINEYARD SOUND, MASS.

Notice is hereby given, that on the 15th of October next, a light-vessel will be stationed S. by E. ¼ E. 1¼ mile from the south part of Handkerchief Shoal, off Monomoy Point, Massachusetts. This vessel is schooner-rigged, with a black oval grating day-mark at each masthead. Her hull is painted straw-color, with the word "Handkerchief" in large black letters on each side. She will show every night, from sunset to sunrise, one fixed light of the natural color. The vessel will be moored with a mushroom anchor of 3,500 pounds, and 90 fathoms of 1¼ inch chain, in 5¼ fathoms water. Monomoy Point Lighthouse bears N. E. ¼ N., Shovelfull Shoals Lighthouse bears N. E. ¼ N., Great Point Lighthouse bears S. ¼ W., Handkerchief, South part, buoy bears N. by W. ¼ W. Bearings and courses are magnetic. By order of the Lighthouse Board,

MELANCTON SMITH, Inspector Second L. H. District.

BOSTON, MASSACHUSETTS, September 25, 1858.

FIXED LIGHT ON CAPE CULLERA—MEDITERRANEAN, COAST OF SPAIN.

The Minister of Marine at Madrid has given notice, that on and after the 1st of August, 1858, a light would be exhibited from the lighthouse recently erected on Cape Cullera, in the province of Valencia. The light is a fixed white light, illuminating seaward, between the Grao or port of Valencia, and Cape San Antonio, or on the bearings north, round westerly to S. S. E. It is placed at an elevation of 92 English feet above the level of the sea, and should be visible from the deck of a vessel in clear weather at a distance of 15 miles. The illuminating apparatus is dioptric, or by lenses, of the third order. The light-tower is round, and rises from a circular building; the whole painted light yellow. It stands on the extremity of the cape, in latitude 39° 12¼′ N., longitude 0° 13¼′ west of Greenwich. The bearings are magnetic. Variation 18¼° west in 1858. By order of the Lighthouse Board,

THORNTON A. JENKINS, Secretary.

WASHINGTON, September 25, 1858.

JOURNAL OF INSURANCE.

MARYLAND INSURANCE LAW.

AN ACT RELATING TO FOREIGN CORPORATIONS OR ASSOCIATIONS FOR INSURANCE, AND THEIR AGENCIES IN THIS STATE. PASSED MARCH 8, 1858.

SECTION 1. *Be it enacted by the General Assembly of Maryland*, That from and after the passage of this act, it shall not be lawful for any person or persons to act as the agent or agents, within this State, for any individual or association of individuals, or corporations, not incorporated and authorized by the laws of this State, to make insurance on marine or fire risks, or insurance on lives, or to make other insurances, or to receive or transmit offers for insurances to their principals, or to receive or deliver policies of insurance, or any instruments in the nature or to the effect of policies of insurance, or to advertise or offer to make such insurances, or to receive and transmit such offers, or to receive or deliver such policies, by publication in any paper, or by any card or circular, or to open any office for the transaction of such business, although such individual or individuals, or association of individuals, may be incorporated for such purposes by the laws of any State, District, or Territory of the United States, or by the laws of any kingdom, State, or nation, without first obtaining a license therefor, in the manner hereinafter described.

SEC. 2. *And be it enacted*, That a license for the purpose of effecting insurances, or receiving or transmitting offers for insurance, or receiving or delivering policies of insurance, as expressed in the preceding section, shall be granted by the Controller of the State to any person or persons, body or bodies, corporate or politic, who shall apply therefor, and pay to the said Controller the sum of two hundred dollars, for the use of this State; which license shall authorize the person or persons, body or bodies, corporate or politic, to whom the same shall be granted, to effect insurances, or to receive and transmit offers for insurances, or to receive and deliver policies of insurances, as aforesaid, from the day of this date for the period of twelve months thereafter, and no longer.

SEC. 3. *And be it enacted*, That if any person or persons, body or bodies, corporate or politic, acting as agent or agents, as aforesaid, shall effect an insurance or insurances, or affect to effect an insurance or insurances, or receive and transmit an offer or offers for insurance, or receive or deliver a policy or policies of insurance, as aforesaid, or advertise or circulate any card, circulars, or notice, or open or keep any office for the transaction of said business, without a license first had and obtained, as hereinbefore provided, he, she, or they shall forfeit and pay for each offense the sum of five hundred dollars, one-half to the use of the informer, who shall be a competent witness, the other half to be paid to the Clerk of the Criminal Court of the city of Baltimore, as the case may be, for the use of this State, to be recovered in the name of the State of Maryland, by action of debt or indictment, in the Criminal Court for the county, or in the Criminal Court for Baltimore city, where such offense shall have been committed, and to be accounted for and paid into the treasury by the clerk receiving the same, at the period limited for accounting for and paying moneys received for license.

SEC. 4. *And be it enacted*, That the Controller shall annually publish, in at least two newspapers, one of which shall be in the city of Baltimore, the names of such agent or agents, so taking out license under this act, with the names of the companies they represent.

SEC. 5. *And be it enacted*, That nothing in this act contained shall authorize any agent or agents to act as such for more than one foreign corporation, individual, or association of individuals, by virtue of one license.

SEC. 6. *And be it enacted*, That no license shall be issued to any person or persons, as hereinbefore provided for, who has or have heretofore acted or held himself or themselves out as agent or agents for any individual, or association of

individuals, or corporation, not incorporated by the laws of this State, as aforesaid, until such person or persons shall have paid into the treasury the sum of one hundred dollars per annum for every year during which said person or persons acted or professed, or held himself or themselves out to act, as such agent or agents; and no license shall be granted to any person or persons to act as agent or agents under this act, or any individual, association, or corporation, not incorporated by this State, until the Controller shall be duly satisfied that all, or any other agent or agents, by whom the said individual, association, or corporation, shall have been heretofore represented as the agent or agents thereof, has or have paid into the treasury the annual license of one hundred dollars, provided for and required by the act of eighteen hundred and forty-six, chapter 357, for every year during which said agent or agents acted, or held himself or themselves out to act, as agent or agents of said individual, association, or corporation.

SEC. 7. *And be it enacted*, That it shall be the duty of the Controller to ascertain, from time to time, whether any of the provisions of this act have been violated, and to give notice of such violations to the State's attorney of the city or county where the person or persons violating the same shall reside; and it shall be the duty of the said State's attorney to give notice of the requirements of this act to the person or persons violating the provisions of this law; and unless the said person or persons shall, within thirty days after said notice, obtain a license, as hereinbefore provided, it shall be the duty of the said State's attorney to proceed to enforce the penalty, as provided for in the third section of this act, and to give notice, by public advertisement, that all policies issued, or insurances made by said agent or agents, after the expiration of the said thirty days, are absolutely null and void.

SEC. 8. *And be it enacted*, That in all cases in which any person or persons shall be sued or prosecuted for any violation of this act, it shall be sufficient to prove, in behalf of the State, either that the said person or persons did advertise, or hold himself or themselves out by any publication, card, or circular, as agent for the said individual, association, or corporation, or that he or they kept an office or other place for the transaction of such business, or that he or they did make insurance, or receive or transmit an offer or offers for insurance to his or their principals, or that he or they did receive or deliver a policy or policies of insurance, or an instrument or instruments of the tenor and effect thereof; and it shall be sufficient to prove, that the name of the corporation set forth in the suit or indictment, is that under and by virtue of which the said agent or agents has or have professed to act, and the burden of proof, that such incorporation is not incorporated by the State of Maryland, but is incorporated by some other State or nation, shall not rest upon the said State in any suit or prosecution, but it shall be incumbent upon the defendant or defendants, traverser or traversers, to show that the corporation for which the said defendant or defendants, traverser or traversers, may have acted as agents, was duly incorporated by this State; and whenever any person or persons shall profess or hold himself, herself, or themselves out as agent for more than one corporation, individual corporation, he, she, or they shall, upon proof of said holding out, be held and adjudged guilty of, and both for as many separate offers under the laws as there are or may be individual associations or corporations professed or held out to be represented by him.

SEC. 9. *And be it enacted*, That the Act of Assembly, passed at December session, 1846, chapter 357, entitled, "An Act relating to foreign corporations and their agencies in this State," providing for the granting of licenses to insurance companies not incorporated by the State, be, and the same is, hereby repealed; provided, however, that all rights acquired by the State, under said act, are hereby expressly reserved, and that nothing in this act contained shall prevent the enforcing of the penalties incurred by persons who may have heretofore violated this act.

SEC. 10. *And be it enacted*, That the provisions of this act shall not apply to the agents of any corporation, association, or individual to whom a license has been granted under the act of 1846, chapter 357, until the expiration of said existing license.

SEC. 11. *And be it enacted*, That this act shall take effect from the date of its passage.

TREASURY DEPARTMENT, CONTROLLER'S OFFICE, ANNAPOLIS, May 22d, 1858.

To obtain a license under the above act, the applicant must make affidavit that he is not indebted to the State of Maryland for the annual license fee of one hundred dollars, required by the act of 1846, and that the company for which he makes application, as agent, is not so indebted.

On the first day of July next, all agents who have failed to comply with the requirements of the Act of Assembly of 1858, chapter 432, will be proceeded against, according to the mode prescribed in the said act.

WM. H. PURNELL, Controller of the Treasury Department.

ENGLISH MARINE INSURANCE.

PREMIUMS OF INSURANCE AT LIVERPOOL.

	Outward.	Home.
Jamaica	20s. a 25s.	25s. a 40
Leeward Islands, Demerara, and Berbice	20 a 25	20 a 30
Honduras	50 a 80	50 a 80
Havana	35 a 50	35 a 50
New York	20 a 30	15 a 25
Charleston and Savannah	25 a 30	20 a 25
New Orleans	35 a 40	40 a 50
Canada and British North America	30 a 60	30 a 50
Newfoundland	20 a 30	20 a 30
Brazils	20 a 25	20 a 40
River Platte	25 a 35	25 a 35
East Indies	30 a 40	35 a 60
China	40 a 70	40 a 70
Batavia	30 a 40	35 a 50
Australia, warranted	35 a 45	40 a 50
Cape of Good Hope	40 a 50	40 a 50
Africa, west coast	40 a 60	105 a 120
Gibraltar	10 a 15	10 a 15
Lima, Valparaiso, etc., warranted	30 a 35	35 a 50
Malta, Sicily, etc., warranted	15 a 20	15 a 40
Smyrna and Constantinople, warranted	20 a 25	20 a 50
Malaga, warranted	15 a 20	15 a 20
Madeira	15 a ..	15 a ..
Western Isles and Cape Verdes	15 a 20	15 a 20
Lisbon and Oporto	15 a 20	15 a 20
Cadiz, warranted	15 a 20	15 a 20
France	15 a 20	12 a 20
Holland	15 a 25	15 a 25
Hamburg, Bremen, etc.	20 a 25	15 a 20
Gothenburg and Stockholm	25 a 30	20 a 30
St. Petersburg, Riga, etc.	30 a 40	25 a 30

Warranted free from capture, seizure, detention, or the consequences of any attempt thereat.

MASSACHUSETTS ACT CONCERNING MUTUAL FIRE COMPANIES.

AN ACT TO AMEND AN ACT CONCERNING INSURANCE COMPANIES.

SECTION. 1. *Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:*—The thirty-ninth section of the two hundred and fifty-second chapter of the acts of the year eighteen hundred and fifty-six, is hereby so amended that any mutual fire insurance company which shall hereafter be incorporated by the Legislature of this Commonwealth, may issue policies of insurance when the sum of two hundred and fifty thousand dollars shall have been subscribed to be insured, according to the provisions of said section.

SEC. 2. This act shall take effect from and after its passage.

Approved March 27, 1858.

POSTAL DEPARTMENT.

UNITED STATES POSTAL REVENUE, 1858.

The subjoined tabular statement relating to the postal revenue of the United States, presents a comparative view of the receipts for letter and newspaper postage, registered letters, postage stamps, and stamped envelops, (being the entire postal revenue,) in the several States of the Union, during the years ending June 30, 1857, and June 30, 1858. By reference to it, it will be observed that there have been increased receipts during 1858 in the States of New Hampshire, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Mississippi, Texas, Kentucky, Wisconsin, Louisiana, Tennessee, Missouri, Illinois, Ohio, Indiana, Arkansas, and Minnesota, in the District of Columbia, and in the Territories of Oregon, New Mexico, Nebraska, Washington, and Kansas, while in the other States the receipts are less than in 1857. The aggregates show an increase in 1858 of $125,675 91. Here is the statement :—

States.	Receipts.		Expenditures.	
	1857.	1858.	1857.	1858.
Maine	$154,565 92	$153,152 85	$87,883 86	$88,983 32
New Hampshire	102,657 86	105,414 87	55,134 83	57,604 43
Vermont	100,743 96	100,379 15	54,831 34	54,870 23
Massachusetts	579,946 65	565,633 14	246,596 21	247,993 50
Rhode Island	64,077 08	61,054 47	26,456 78	26,194 35
Connecticut	212,492 21	199,324 42	96,143 52	95,646 95
New York	1,503,444 42	1,458,711 39	600,778 72	628,161 37
New Jersey	117,903 45	121,272 46	57,214 27	60,277 87
Pennsylvania	629,154 54	617,756 65	270,125 36	282,225 50
Delaware	20,379 48	21,822 03	9,867 34	10,215 02
Maryland	173,192 23	176,018 63	63,742 44	64,120 52
District of Columbia	44,698 70	50,902 16	38,621 74	39,595 71
Virginia	234,531 59	242,951 08	121,192 63	126,139 29
North Carolina	75,328 72	81,405 08	41,401 84	43,119 24
South Carolina	95,503 98	101,144 66	38,798 85	41,011 93
Georgia	153,858 32	161,616 86	79,285 38	80,817 44
Florida	20,898 39	24,683 43	10,984 79	12,284 95
Alabama	115,396 71	111,091 69	55,334 26	60,489 54
Mississippi	84,677 52	88,458 48	44,683 20	47,830 31
Texas	77,516 98	85,449 40	39,439 42	43,934 66
Kentucky	136,942 51	140,049 04	67,092 38	67,875 58
Michigan	167,934 44	165,882 09	89,653 62	90,722 69
Wisconsin	180,428 40	185,228 41	85,600 20	89,236 10
Louisiana	154,504 85	180,042 11	56,602 64	61,166 44
Tennessee	114,596 80	118,813 61	57,109 13	62,951 46
Missouri	165,817 21	190,180 02	73,265 19	85,978 79
Illinois	399,383 66	440,865 58	217,211 78	250,101 15
Ohio	490,823 78	503,019 06	246,499 84	255,989 60
Indiana	184,813 45	192,548 23	102,268 22	107,000 84
Arkansas	29,824 95	35,726 54	18,798 93	22,231 08
Iowa	157,724 92	156,791 90	85,200 84	89,400 93
California	256,993 91	256,746 42	114,022 25	106,506 23
Oregon Territory	12,025 39	13,576 46	5,579 34	6,132 66
Minnesota	43,815 71	51,781 46	21,339 66	27,247 54
New Mexico	1,640 88	1,759 88	692 42	766 16
Utah	1,383 69	1,800 24	792 80	721 29
Nebraska	3,929 13	9,079 17	2,236 64	4,928 49
Washington	1,789 80	2,426 36	842 12	1,427 18
Kansas	10,945 62	21,984 03	5,464 48	11,535 68
Total	7,070,367 81	7,196,043 72	3,288,789 56	3,453,444 02

The expenses of the department during the year given above are for compensation to postmasters and incidental expenses of post-offices. There is yet to be added to this side of the account the expense of transportation, which in 1857 amounted to an aggregate of $6,596,152 66, and it will hardly fall under that sum during 1858. This statement exhibits an excess of expenditures in 1858 over 1857 in every State and Territory except Rhode Island, Connecticut, California, and Utah; and the aggregate increase during the latter year is shown to be $164,654 46, overbalancing the increase of receipts by $38,978 55.

In 1857, the expenses of the Post-office Department exceeded the revenue derived from the postal service by $2,814,574 41, without including the foreign mails on either side of the account. During 1858 the probabilities are that a larger deficit will be exhibited.

POST-OFFICE REGULATIONS.

POSTAGE UPON LETTERS TO INDIA.

We are requested to state that the regulations recently promulgated by the British Post-office relative to the compulsory prepayment in full of postage upon letters between the United Kingdom and the East Indies, (notices of which have been extensively published in the newspapers of this country,) apply only to letters posted in the United Kingdom addressed to the East Indies, and *vice versa*, and do not extend to transit letters for India received from the United States.

The regulation for collecting the United States postage only upon letters mailed in this country for India, via England, is therefore still in force—the single rate of United States postage being 21. or 5 cents, according as the Atlantic sea conveyance is performed by United States or British packets.

MAILS FOR GERMANY.

We are requested to state for the information of the public, that mails for Germany will be regularly made up and dispatched from New York by the several lines of United States, Bremen, and Hamburg mail steamers, as follows:

By United States mail steamer to Bremen, on 30th October, 1858.
By Hamburg mail steamer to Hamburg, on 1st November, 1858.
By Bremen mail steamer to Bremen, on 6th November, 1858.
By Hamburg mail steamer to Hamburg, on 15th November, 1858.
By Bremen mail steamer to Bremen, on 20th November, 1858.
By United States mail steamer to Bremen, on 27th November, 1858.
By Hamburg mail steamer to Hamburg, on 1st December, 1858.
By Bremen mail steamer to Bremen, on 4th December, 1858.
By Hamburg mail steamer to Hamburg, on 15th December, 1858.
By Bremen mail steamer to Bremen, on 18th December, 1858.
By United States mail steamer to Bremen, 25th December, 1858.

The rates of postage to Germany upon letters transmitted by either of the above lines of mail steamers are precisely the same, being the regular established rates "by Bremen or Hamburg mail," as published in the table of postages to foreign countries.

Postmasters in the interior should forward at once to New York all letters, &c., for Germany, mailed to go by either of said lines.

PREPAYMENT OF POSTAGE TO SPAIN OPTIONAL.

We are requested, says the Washington *Union*, to state that notice has been given by the British Post-office that the reduced rates of postage (*in the British mail*) between the United States and Spain, including Majorca, Minorca, and the Canary Islands, (which were published in the "*Union*" of 2d October instant,) may now be paid in advance, or left to be paid on delivery, at the option of the sender. Correspondents should be particular to prepay the *full postage* chargeable on a letter, or *none at all*, as partial prepayments of postage are not recognized or credited by the exchange offices.

POST-OFFICE DEPARTMENT.

The following is a statement of the receipts and expenditures of the Post-office Department for the quarter ending on the 30th of June, 1858, as exhibited by the books of the Auditor of the Treasury for that Department :—

RECEIPTS.

Amount of letter postage	$216,298 53
Newspaper and pamphlet postage	140,790 72
Postage for registered letters	6,661 80
Stamps sold	1,434,096 85
Emoluments	18,174 93
Total	$1,816,022 83

EXPENDITURES.

Postmasters' compensation	$587,414 79
Paid for ship, steamboat, and way letters	4,471 53
Incidental expenses of post offices	271,954 20
Total	$863,840 52
Net balance due the United States	952,182 31

The postage stamps and stamped envelops used and canceled amount to $1,346,257 34.

TELEGRAPHS IN EUROPE.

The following table, says the *Railroad Journal*, shows the extent and population of several countries, with the mileage of telegraph within the limits of each :—

	Extent, square miles.	Population.	Telegraph, miles.	Wires, miles.
Great Britain and Ireland	122,500	28,600,000	8,000	40,000
France	207,200	36,000,000	7,000	26,000
Belgium	11,400	4,800,000	600	1,600
Holland	13,600	3,500,000	600	1,600
Germany, &c.	462,000	74,000,000	10,000	35,000
Switzerland	15,300	2,400,000	1,500	2,000
Spain and Portugal	225,000	19,000,000	600	1,200
Italy	120,000	25,700,000	2,500	6,600
Turkey, Greece, &c.	224,000	16,800,000	200	500
Russia	2,134,000	60,400,000	6,000	12,000
Denmark, Sweden, &c.	315,000	6,800,000	1,000	2,000

In Italy, Sardinia has the largest share of the lines, having about 1,200 miles; and in Germany, after Austria and Prussia, the largest share is due to Bavaria which has 1,050 miles, and Saxony which has 400 miles. Wurtemberg has 195 miles. The distance of stations on the lines of continental telegraphs is between 10 and 11 miles on the average, and if taken at 10 miles, the whole number with the mileage given above will be about 3,800.

CARELESS POSTING.

The records of the Dead Letter Office show that there must be a great amount of ignorance or of carelessness in regard to posting letters, and it is probable that the latter preponderates. A careful business man pays the utmost attention to preparing letters for the mail, and observes the rule of always looking over the address of each one before depositing in the Post-office. During the three months which terminated on the 30th ult. there were found 2,729 letters which contained money, amounting in the aggregate to $12,921. For the quarter which closed on the 30th June last there were received 4,549 letters, and $21,498 in money. For the quarter ending 30th March, 2,472 letters, and $13,457 in money. Quarter closed 31st December, 2,352 letters, and $13,361 in cash. Total in the year, 12,102 letters, and $61,239 in money.

RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

RAILROADS IN CHILE.

The track of the Copiapo Extension Railway, running from Pabellow to Chanarcillo, is now completed for a distance of twelve miles. On the 29th of July, Mr. Taggart, the mechanical engineer of the Copiapo Railway, made an experimental trip over this new piece of road with the engine Chile, which was highly interesting and satisfactory. The engine passed with ease around the sharp curves of 500 feet radius, and up the steep inclines of that road, which vary from 170 to 224 feet per mile, using steam of 100 pounds pressure expansively cutting off at half stroke, in cylinders of 10½ inches, with wheels of five feet diameter, until she reached the terminus, at which point the engine stood at an elevation of 4,075 feet above the ocean, which is over 1,000 feet higher than any engine ever climbed before. The summit of the railway from Vienna to Trieste, over the Simmesaag, in the Alps of Austria, is supposed to be the highest previously crossed by a locomotive. This summit is less than 3,000 feet above the sea. The summit of the Blue Ridge in Virginia, on the Baltimore and Ohio Railway, supposed to be the next highest, is less than 2,700 feet. The summit of the Copiapo Extension Railway, which is at the distance of two miles from the present terminus of the railway, is 4,470 feet above the sea. Before the return of the next celebration of Chile independence, steam will have surmounted this high point, and the shrill whistle of the locomotive will have sounded its exulting cry among the hills of Atacama, at an elevation of 1,400 to 1,500 feet higher than in any other part of the world. This is a point in the progress of railways worthy of note. It leads the reflecting mind to believe that the day is not far distant when the locomotive will find its way to the summit of the Cordilleras, opening new channels of commerce and wealth to the natives on the east and the west.

The Copiapo Extension Railway is being built under the direction of Mr. W. W. Evans, for an English company. It is reported that another railway, to connect the rich silver mines of Tres-Puntas with the Copiapo Railway, a distance of fifty-four miles, will soon be commenced for another English company, under the direction of Mr. Evans. This road will have its terminus in the desert of Atacama, at an elevation of over 5,000 feet above the sea. On the whole route there is no vegetation, nor is there any water, nor does it ever rain in this region. Yet at these mines, so high in the mountains and so far from the actual sources of luxury, are often to be found on the tables of the miners the choicest wines and the most costly delicacies which money can produce. Mines which can yield metal worth from thirty to thirty-four thousand dollars a ton, can well afford to indulge its directors in luxuries, and laugh at all expenses. During the "Fiestas," the common creek miner can often be seen indulging his own and his Senorita's fancy for a drink in a punch, which costs him an ounce of gold. The line of this railway to Tres-Puntas has rich copper mines on both sides for most of the distance. Besides the silver mines at the terminus there are also many gold mines. It remains to be seen what other mineral wealth will be developed in this truly wonderful metallic region when this railway is completed.

RAILWAY PROPERTY IN GREAT BRITAIN.

The following resolutions which were adopted by the Railway Shareholders' Association in Great Britain on the 31st August, 1858, are suggestive at this time to similar interest in the United States :—

First. That in the present depreciated condition of railway property, it is desirable that the directors and shareholders should co-operate with each other for the following purposes :—

1st. To lay down some general principles and rules applicable to the management of their undertakings, so that ruinous competition may in future be avoided, and railway property rendered a more sound and profitable investment.

2d. To settle and fix an equal scale of rates and fares for all companies having common termini, so that the greatest amount of net profit may be secured to each of them. To limit speed at which the trains shall be run by companies, which traverse the same districts, and to prevent the funds of existing companies being applied towards the promotion of new lines.

3d. To agree by mutual consent on one uniform system of railway accounts, and on the policy of placing capital and revenue under separate guardianship and control.

4th. To call the attention of Her Majesty's Government and the Legislature to the injustice inflicted on railway shareholders, without any permanent advantage to the country, by the formation of competing lines, whilst the existing companies are bound down by maximum rates and fares for the public protection; and to agitate for the appointment of a permanent, impartial, and responsible tribunal, to investigate and report on the merits of private bills in the place of Parliamentary committees.

5th. To obtain the promised alteration in the law applicable to the rating of railway companies for parochial and local purposes—a modification of the passenger tax—an amendment of Lord Campbell's act—and a more equitable arrangement with the Post-office authorities in reference to transmitting merchandise through the mail bags.

Second. That copies of the above resolutions be forwarded to the secretary of each railway company, and that the shareholders be earnestly requested to join this committee, and to contribute towards the expenses which must necessarily be incurred in accomplishing the objects we have in view for the protection and restoration of railway property.

BALTIMORE AND OHIO RAILROAD.

The financial year of the company closes with September. A comparison of the revenue of the past year with that of the year ending September, 1857, exhibits the following results :—

	1856–57.	1857–58.
October	$470,416 34	$396,191 85
November	422,218 45	366,488 79
December	462,085 96	381,143 42
January	297,581 87	320,131 87
February	350,877 13	280,373 98
March	545,447 81	441,649 38
April	459,430 58	485,596 85
May	381,736 17	401,752 76
June	420,828 22	402,591 75
July	441,800 81	365,269 53
August	447,910 47	371,288 60
September	445,490 75	397,621 25
Total	$5,145,578 46	$4,610,100 01
" 1857–58	4,610,100 01	
Decrease present year	$535,733 45	

THE CANADA CANALS.

The Welland Canal is one of the most important of the public works of Canada, and has already contributed largely towards the trade of the province. The canal connects the waters of Lake Erie with those of Ontario, having a length of twenty-eight miles from Port Colborne, on Lake Erie, to Port Dalhousie, on Lake Ontario, showing, by the locks, a total fall of 330 feet between the two lakes :—

TONNAGE OF PROPERTY AND VESSELS, UP AND DOWN.

	1854.	1855.	1856.
Welland Canal	1,744.900	1,900,800	2,155,800
All others	2,076,100	2,069,200	2,522,200
Total	3,821,000	4,070,000	4,678,000

The length of these several canals is 69 miles, and 22½ of the feeders.

	Length.	Lockage.	Width. Bottom.	Width. Top.
Welland	28	330	45	81
ST. LAWRENCE CANALS.				
Galops	2	8	50	90
Point Iroquois	3	6	50	90
Rapid Plat	4	11½	50	90
Farran's Point	¾	4	50	90
Cornwall	11½	48	100	150
Beauharnois	11½	82½	80	120
Lachine	8½	44¾	80	120
Total	69	534¾		

The obstacles presented by Niagara Falls and river, (330 feet,) are thus overcome by the Welland Canal, while the remaining fall of 234 feet is so distributed (between the head of Lake Ontario and the foot of the St. Lawrence) as to be overcome by steamers in their descent, and by sailing vessels through the canals where the rapids are too strong. Steamers run daily direct from Lewiston to Montreal, and thence to Quebec; but on their return they use the canals.

Besides the canals above enumerated, there is Rideau Canal, from Ottawa to Kingston, constructed at a cost of $3,860,000 by the home government. This work was commenced in 1826, is 126½ miles—number of locks 47, with a fall of 457 feet.

Port Colborne, where the Welland Canal opens, is in Welland County, distant from Hamilton 45 miles, and from Buffallo 23 miles. The export is largely in wheat.

Port Dalhousie, the lower terminus of the Welland Canal, is a port of entry in Lincoln County. The harbor is one of the best on Lake Ontario, distant from Toronto, by water, 30 miles; from Hamilton, 36 miles. The exports are mainly in wheat and flour.

St. Catharines is an incorporated town on the Welland Canal, in Lincoln County; a section of country termed the "Garden of Canada West." It is distant from Niagara, the county town, 11 miles; from Niagara Falls, 12 miles; from Hamilton, 32 miles; population 7,000. St. Catharines is also on the Great Western Railway, leading from Niagara to Detroit, and is noted for the mineral artesian well.

RAILROADS IN IOWA.

The following resolution was passed on the 12th of October, by the Dubuque City Council :—

Whereas it appears that the people of this city have heretofore at different times voted loans for railroad purposes, amounting to the sum of $1,650,000, to-wit :—

For the Dubuque and Pacific Railroad	$200,000
" Dubuque Western Railroad	250,000
" Dubuque, St. Peter, and St. Paul Railroad	750,000
" Turkey River Valley Railroad	200,000
" Southern Wisconsin Railroad	150,000
" Dubuque and Bellevue Railroad	100,000
Total	$1,650,000

And whereas it appears further, that only a portion of said bonds have been issued up to this time, to-wit :—$450.000 ; $200,000 for the Dubuque and Pacific Railroad, and $250,000 for the Dubuque Western Railroad, and whereas from the great commercial distress now pervading the country, the want of confidence in the money market of the East, affecting the West, and the heavy taxes necessary to impose in such case, it is inexpedient and unwise to negotiate any more bonds for railroad purposes,

Resolved, That hereafter this council will not authorize, countenance, or consent to the issuing, sale, use, or negotiation of the bonds above described, or any part thereof, or any transaction, arrangement, or scheme which shall require the issue or expenditure of money other than for the payment of interest already contracted for, from the city treasury for railroad purposes.

TENNESSEE RAILROADS.

The road commissioner of Tennessee states that there will be more iron laid in Tennessee this year than has ever been laid in any one year, viz. :—

The East Tennessee and Virginia Road has laid...miles	27
The Cleveland and Chattanooga will lay	30
In East Tennessee	57
Winchester and Alabama	15
Tennessee and Alabama	15
Louisville and Nashville	30
Edgefield and Kentucky	30
In Middle Tennessee	90
Mobile and Ohio will lay	60
Memphis and Ohio will lay	25
In West Tennessee	85
Total in the State	232

There are now in active operation in Tennessee, 679 miles of railroad. By the 1st of January next, there will be 875 miles running ; and January, 1860, the number of miles in active operation will be 1,146.

STATE INTEREST IN RAILROADS.

The State of Virginia reserves to herself the right to tax the railroads of the Commonwealth one mill per mile on every passenger carried over her roads. In accordance with this provision, we learn that the amount paid by the Virginia and Tennessee Railroad, into the Treasury of the State, on account of passengers transported over the road during the six months ending the 30th of September, was $4,070 35.

RAILWAY MANAGEMENT.

A plan put forward by Mr. Thomas Wrigley, of Bury, Lancashire, for the government and working of railways, so as to render it impossible for the capital account to be tampered with, has deservedly attracted favorable notice. He would have in each case two sets of officers, one of whom should hold the property of the line as trustees, while the other should work it as tenants. It would be vain, however, to hope for any recognition of the advantages of the scheme from boards of directors, although they might easily carry it out by a simple division of their functions. Shareholders must act if they wish anything done, and there is little encouragement to believe that anything will overcome their apathy. The prospect, nevertheless, is that a general adoption of the proposal would at once lead to an improvement in the market value of every description of railway security.

FRENCH RAILROADS.

The various French railway companies intend to introduce into their service several important ameliorations, which will tend to give to families much additional comfort in first-class carriages. Special carriages are to be constructed, composed of saloon, bedroom, and ante-room, which may be engaged at a special tariff. A family, composed of five or six persons, may thus undertake the longest journey with but little fatigue, and, if necessary, take their servants to wait on them.

CANAL TRADE IN VIRGINIA.

The clearances at the Lynchburg toll office of the James River and Kanawha Canal during the fiscal year, commencing 1st October, 1857, and ending 30th September, 1858, were as follows:—

Wheat	bush.	528,072
Flour	bbls.	64,178
Leaf tobacco	lbs.	8,016,447
Manufactured tobacco		6,311,145
Tobacco stems		1,721,760
Copper ore		594,569
Bar and pig lead		951,333
Pig iron	tons.	2,276
Wood for fuel	cords.	4,557
Miscellaneous	tons.	15,000
Total tonnage for the year		57,691
Excess of total tonnage over fiscal year 1856–57		16,649

VERMONT AND CANADA RAILROAD.

EARNINGS AND EXPENSES FOR SIX YEARS, FROM JULY 1, 1852, TO JULY 1, 1858.

Date.	Earnings.	Expenses.	Net.
1852–53	$679,601 57	$409,780 23	$269,821 34
1853–54	796,378 66	602,102 13	194,276 53
1854–55	722,326 01	699,550 85	112,775 16
1855–56	756,945 54	551,749 26	214,196 28
1856–57	808,327 87	658,719 63	149,608 24
1857–58	705,837 61	597,319 58	108,518 03
Total	$4,478,417 26	$3,429,221 68	$1,049,195 58

JOURNAL OF MINING, MANUFACTURES, AND ART.

HARDENING IRON.

Every improvement in the manufacture of iron, which is to us the "King of Metals," is to be hailed by the productive world as a positive blessing; and however slight those improvements may be, they deserve the attention of the chronicler's pen; how much more so, then, when they are important and practical, as are those we are about to mention.

The first is the invention of a French clergyman—Charles Pauvert, of Targe, France—and consists in purifying iron by chemical means. He places the iron in the cementing furnace with 33 parts by weight of finely powdered charcoal, 33 parts of highly aluminous clay, 33 parts of carbonate of zinc or wood ashes, 1 of carbonate of soda, and 1 of carbonate of potash. This produces an iron which has all the properties of the best steel, and it will not lose any of its properties by being heated or drawn out. These substances by chemical action, when heated together, present the carbon in the best possible state to combine with the iron. The method of producing cast steel from this is by melting it in a crucible with about 5 to 6 per cent of the following mixtures:—4 parts of dry carbonate of soda, 3 parts of dry carbonate of potash, 3 of wood ashes, 2 of borax, 3 of oxyd of manganese, and from 4 to 7 parts of charcoal, or some highly carbonaceous body. The 4 parts of carbonate of potash may be replaced by 2 parts of caustic potash. This produces a steel of superior quality, and with more certainty than by the old method. M. Pauvert patented his invention in this country March 23, 1858.

The next invention is that of an Englishman—G. J. Fanner, of Birmingham, England—which consists in using ferrocyanide of potassium, hydro-chlorate of ammonia, and nitrate of potash in equal proportions. These are reduced to a fine powder and incorporated, and a bath made of the same substance dissolved in cold water, the prussiate of potash two ounces, the sal-ammoniac four ounces, and the saltpeter two ounces to every gallon of water. Having now the powder and the bath, the article to be hardened is heated in an open fire or furnace, and rolled in the dry powder until the surface is covered with a pellicle of fused powder, and then it is plunged in the bath where it is left until cold, and when perfectly cooled the mass is hardened. Large masses can be thus rendered extremely hard, but it seems to us to be especially applicable to the hardening of tools, journal bearings, and the like. This process was patented in the United States, April 6, 1858.

Last, but not least, comes an American invention, that of Horace Vaughn, of Providence, R. I., and patented by him March 30, 1858. He employs two pounds of bi-chromate of potash, twelve pounds of chloride of sodium, and four pounds of prussiate of potash; these ingredients are powered and mixed together, and they are placed in an iron box, where they are covered with powered charcoal, and heated in a proper furnace. The articles to be hardened are then placed in the mixture, and the whole heated until the mixture is in a state of igneous fusion, when they are removed and dipped into water, oil, or certain solutions in

the usual manner. The proportions for hardening wrought iron are different, being 25 per cent of prussiate of potash, 65 per cent of chloride of sodium, and 10 per cent of bi chromate of potash; bone ash or animal charcoal, or both, are then added, and the whole is reduced to a state of igneous fusion, and the articles to be hardened are then put in.

Nearly all the inventions of late for hardening iron have been the result of chemistry, and we think that the more perfectly the chemical changes which occur in the transmutation of iron into steel are understood, the nearer we shall be to that great desideratum, making steel directly from the ore, which is the end to which all improvements in iron manufacture are tending.

MANUFACTURING AT THE SOUTH.

Scottsville, Alabama, is a flourishing manufacturing village. It was originally known as the Tuscaloosa Manufacturing Company. It was incorporated by the Alabama Legislature in 1837, with a capital stock of $36,000, which sum was quickly subscribed by a number of capitalists in Tuscaloosa.

In May, 1837, the mills got to work, making coarse cotton cloths, but for some years they made no money. The company and the locality soon changed names and management; the latter coming into the hands of Mr. Scott as principal owner and director, and the place itself took the name of Scottsville. He immediately went to work making improvements and additions to the buildings and machinery, and the mills soon paid dividends. The first $2,200, realized in 1841, was expended in a family of negroes to work in the factory. This family has so increased that the company values them at $10,000, and most of them are now working in the factory, and are very useful. The company have made several purchases of negroes with the profits of the factory, and negro labor is much employed by them.

The principal mill is a large brick building of three stories, with two wings, filled with the best machinery, and employing over one hundred hands, of whom three-fourths are females. A large overshot wheel, driven by water, is the principal motor of the machinery. There are about 25,000 spindles and 50 looms at work.

Wool and cotton are both spun. The consumption of cotton averages 35,000 pounds per month, and $1,000 worth of yarns in the same time, together with a large quantity of linseys and a superior article of cotton sewing thread.

In 1841, the sum of $40,000 capital stock had been paid in. Every year since then a dividend of ten per cent has been declared, which has been laid out in buying negroes, land, &c., adding to the buildings and machinery in the village, until the capital stock has increased to $117,000, of which $25,000 is in negroes, and about $16,000 in goods in the company's store.

The company owns 3,000 acres of land, and all the buildings on the place, which consist of the factory, a large hotel, the store, blacksmith, carpenter, wheelwright, and boot and shoe shops, a saw mill, grist mill, large flouring mill, a church, and a large number of cottages. No liquor is permitted in the village, and the company will not sell an inch of its land to any one. Its stock has long been over par, and its dividend this year will be at least twelve per cent.

So much for enterprise, governed by steadiness, perseverance, and skill.

THE IRON TRADE OF THE UNITED STATES.

In a history of the rise and progress of the iron trade of the United States, just published by B. F. French, the following statistics are given :—

TABLE OF RAIL MILLS IN THE UNITED STATES, WITH THEIR CAPACITY TO MAKE, IN 1854 AND 1857.

Names.	Where located.	1854.	1857.
Bay State	Boston, Massachusetts ..... tons	15,000	17,801
Rensselaer	Troy, New York.....	4,000	13,512
Trenton	Trenton, New Jersey	10,000	16,000
Phœnix	Phœnixville, Pennsylvania.....	13,688	18,590
Montour	Danville, Pennsylvania.....	16,000	22,502
Rough and Ready	"	4,500	5,500
Pottsville	Pottsville, Pennsylvania.....	1,676	3,021
Lackawanna	Scranton, Pennsylvania.....	10,982	11,336
Safe Harbor	On Susquehanna, Pennsylvania.....	10,175	17,528
Mount Savage	Cumberland, Maryland.....	7,000	7,357
Cambria	Johnstown, Pennsylvania.....	1,806	7,159
Brady's Bend	Brady's Bend, Pennsylvania	8,700	13,206
Washington	Wheeling, Virginia.....	4,500	2,355
Covington	Covington, Kentucky.....	....	1,976
Railroad Mill	Cleveland, Ohio.....	....	1,976
Newburg Mill	"	....	1,800
Wyandotte	Detroit, Michigan	....	6,000
Gate City	Atlanta, Georgia.....	....	16,000
Palo Alto	Pottsville, Pennsylvania.....	....	1,800
Newburg	Newburg, New York.....	....	1,200
Total	.....	108,027	188,701

The progress of iron manufacture in the Western States is wonderful, and continues unabated. The consumption of pig iron in these States was estimated, in 1857, at over three hundred thousand tons, of which Pittsburg consumed more than one-half in her manufactures. In that city there are twenty-five iron and steam rolling mills, which consume—

105,333 tons of	pig iron.....	$3,159,900
27,267 "	blooms	2,181,361
4,931 "	scrap iron.....	186,440
2,550 "	Swedes and rolled iron.....	178,500
6,187,515 bushels of	coal.....	251,500
118,000 "	coke.....	5,900
5,040 tons of	ore.....	120,696
5,040 "	fire clay	21,500
2,095,000 fire brick	.....	41,900
51,860 gallons of	oil and grease.....	53,034
Small items to amount of	.....	43,000
Total	.....	$6,243,820
They employ 4,433 hands, whose yearly wages amount to	.....	2,366,020
The capital in the ground, building, and machinery employed in prosecution of the business is	.....	3,280,000

COPYING-PAPER.

The paper is impregnated with a preparation of iron, say the protosulphate of iron, by any convenient means in the manufacture of paper (that is to say when the paper is in the pulp ;) or, after it is made, it can be passed between felt-covered rollers supplied with a solution of the protosulphate or other suitable

preparation of iron. A letter written with common writing ink, having an infusion of nut-galls, or the tanno-gallate of iron, as its base (or any ink containing tannin,) when covered with a damp sheet of the paper prepared as above shown and squeezed in a "copying-press," will give a good copy; or by adding to the ink above mentioned a little pyrogallic acid and sugar, such writing, when covered with a damp sheet of copying paper, will yield a good copy by the simple pressure of the hand. It is only necessary to put a sheet of blotting-paper or oil-paper between the damp copying-paper and the hand, and then rub over the writing firmly, as in the act of blotting a letter, thus dispensing with the use of any copying-press. This process has been patented in England by James Hogg, of Edinburgh, Scotland.

BRITISH COAL TRADE.

The following table shows the total quantities of coal exported from Great Britain to each country specified during the month—the total quantity exported during the corresponding month of last year; and the total quantity exported from January 1st to July 31st, in each year:—

	July, 1858.	July, 1857.	January to July, 1858.	January to July, 1857.
France.....tons	120,069	143,016	768,518	758,275
Denmark.....	37,145	45,384	182,953	241,428
Norway.....	9,132	13,079	47,011	53,241
Sweden.....	24,516	19,830	83,942	107,044
Russia.....	45,611	61,867	235,812	192,827
Austria.....	5,185	7,955	55,195	68,559
Germany.....	74,226	54,240	384,787	354,247
Prussia.....	64,100	46,314	227,028	192,646
Holland.....	32,607	27,115	133,850	130,914
Belgium.....	5,053	8,810	31,140	37,524
Spain.....	33,118	22,598	146,705	119,479
Portugal.....	7,070	5,288	32,507	55,731
Italy.....	24,385	12,019	99,746	92,696
Mediterranean.....	31,200	21,764	158,442	129,303
Greece.....	572	3,270	20,143	16,639
Turkey.....	17,731	35,643	119,002	116,354
Africa.....	17,032	22,532	102,092	109,151
Australia.....	1,380	1,220	11,048	19,409
East Indies.....	9,234	36,517	192,659	237,636
West Indies.....	11,128	5,417	122,440	103,294
North America.....	44,150	29,139	275,179	156,116
South America.....	20,265	31,347	167,257	157,588
Channel islands.....	6,485	5,629	32,728	33,809
Heligoland.....	....	....	95	....
Iceland.....	2	75	2	230
Azores.....	388	394	1,867	1,105
Canaries.....	....	....	165	3,860
Madeira.....	....	440	7,544	8,618
Ascension.....	....	....	585	5,653
St. Helena.....	....	....	1,557	1,280
New Zealand.....	....	....	515	....
Sandwich Islands.....	....	....	102	25
Society Islands.....	....	....	1,171	....
Total.....	641,788	660,898	3,643,787	3,504,126

Decrease in July, 1858, compared with July, 1857, 19,115 tons. Increase from January to July, 1858, over the corresponding period of 1857, 139,661 tons.

THE BRITISH WOOLEN TRADE.

At a recent meeting of the "British Association" Mr. E. Baines read a very valuable paper on "the Woolen Manufacture of England." In 1799, the British imported 2,263,000 pounds of foreign and colonial wool, and in 1857, 127,000,000, of which 90,000,000 was retained for home consumption and the rest exported. "The total value of the woolen and the worsted goods and yarn exported last year was £13,645,000; it having been much checked during the last ninety years by the introduction of the cotton manufacture, of which, in goods and yarn, £38,289,000 worth was exported last year." He thought it not safe to assume that there were more than 150,000 operatives engaged in the woolen trade and 125,000 in the worsted trade, making 275,000 together, while the total number of persons directly dependent upon the trade might be set down at 837,500, (including the workers,) there being a larger number of dependent workers in auxiliary trades than in connection with any other manufacture, raw cotton and silk being wholly imported, and flax very nearly so. The wages of those engaged in the woolen manufacture would average 12s. 6d. a week for each man, woman, and child, making for the 150,000 workers £4,875,000 a year. The annual value of the woolen manufacture of the kingdom might be thus stated, and certainly with the reliance that the figures were not excessive:—Foreign and colonial wool, 79,903,000 pounds, worth £4,717,000; 80,000,000 pounds of British wool, £5,000,000; 30,000,000 pounds shoddy, at 2½d., and 15,000,000 pounds mungo, at 4½d., worth £609,000; cotton and cotton warps, £206,000; making about ten-and-a-half millions sterling for materials. Then there came dye wares, oils, and soap, £1,500,000; wages, £4,875,000; rent, wear and tear, interest, profit, etc., £3,381,000; making a grand total of £20,190,000 as the value of the woolen manufacture of the kingdom. The paper occupied an hour-and-three-quarters in reading, and Mr. Baines referred, in illustration, to nearly a score of elaborate tables. Amongst many other things dwelt upon Mr. Baines minutely explained the peculiarities of the trade of the three districts united to form "the Leeds clothing district." He especially described the origin and growth of the shoddy and mungo trades, of which Batley is the center; and he argued that—fairness of dealing being of course implied—those trades were in almost every sense an advantage, especially for their making again useful cloth of rags once thrown aside as useless.

COTTON AND ITS MANUFACTURES.

Mr. Thomas Bazley read a paper before the British Association, from which we briefly take the following figures and calculations:—In 1758 the cotton consumed in Great Britain was about 3,000,000 pounds; this year it would probably be 100,000,000 pounds. The exports of cotton last year were shown by the Board of Trade returns to represent upwards of £39,000,000 sterling; this year, the exports would probably reach £40,000,000, while for home consumption £24,000,000 worth would be taken, representing about 17s. per head for each of the population. The total value of the cotton manufactures of the world could not be set down at less than £140,000,000 sterling; which was equal to 3s., or 14 yards of calico per year for every man, woman, and child. The amount paid to cotton workers, as wages, with interest, rent, taxes, &c., was about £40,000,000

a year; more than half-a-million of workers were employed, and, upon the average of three non-workers dependent upon each, 2,000,000 were supported directly by the trade, the number being very greatly increased by those who lived from the constructive departments. There were about 30,000,000 spindles working in Great Britain, with great numbers of power looms and other machines; warranting the assumption that the invested capital was more than £50,000,000 sterling, which would be raised to upwards of £100,000,000 if the auxiliary trades were considered. Liverpool, which so greatly depended upon the cotton trade, was in 1758 little more than a bathing and fishing station, and its tonnage probably did not exceed 100,000 tons; now, that tonnage was about 5,000,000. In 1758, Manchester and its suburbs could not boast of 20,000 people; at present, 500,000 would not be an incorrect estimate—showing the potency of mechanical skill, and the success of mercantile and manufacturing energy. About one-eighth of the cotton consumed in Great Britain was used for calicoes for printing.

MACHINERY FOR MANUFACTURING PAPER-HANGINGS.

The method of cylinder printing, as applied to the manufacture of paper-hangings, has wonderfully reduced the price as well as improved the quality of that article. Nor is it at all difficult to see how the cylinder method should bring about a lower rate of cost than the block method. Calico printing has borne witness to an analogous fact, and, indeed, the analogy is very close throughout. In the one case cotton, and in the other paper, is made in one continuous length, and in both cases this length is wound round a beam or roller; in both cases there are engraved cylinders, as many as there are to be colors, and each having a device of its own; there are as many troughs as cylinders of colors; the cylinders feed themselves with color, but in such a way as to take up the color on the raised parts in one case, but on the sunk parts in the other; the endless web is drawn in between rollers, and made to pass over all the color-wetted cylinders in succession; the complete pattern is seen to be printed by the time the material leaves the machine, and the printed strip undergoes a rapid drying process.

COST OF ELECTRIC LIGHT.

M. Edmond Becquerel, a French *savant*, has been recently engaged in some experiments with a view to determine the comparative cost of electricity as an illuminating agent. He used a battery of zinc and platinum, made with strict attention to economy, and the results were as follows:—

The standard is the light of 850 candles of the best quality, and the cost of—	
Coal gas, at $1 60 per 1,000 cubic feet was	$0 85
Oil, (rape-seed,) at 17 cents per pound	0 65
Stearine candles, at 32 cents per pound	2 52
Wax candles, at 52 cents per pound	3 12
Electric light	0 58

Thus showing that although the electric light is cheaper than candles, it will not at present compete with coal gas, at least until some cheaper battery power be found.

At the New York prices, $2 50 per 1,000 feet for gas, and the Brooklyn price, $3 per 1,000 feet, gas is the dearest.

STATISTICS OF AGRICULTURE, &c.

AGRICULTURE IN OHIO.

In our number for July, 1858, page 100, we gave the statistics of Ohio as prepared by E. D. Mansfield, Esq., Commissioner of Statistics for the State of Ohio, under the law of April 17, 1857. The figures there contained are very interesting and full. We now append extracts from the Ohio Agricultural Report for last year, prepared by Mr. J. H. Klippart, Corresponding Secretary of the Ohio State Board of Agriculture. It will be observed that the figures vary in some respects from those of the Commissioner of Statistics. He gives, as an instance, the average of wheat for 7 years at 14 bushels per acre; Mr. Klippart gives it for 1857 at 10 bushels per acre. The present report applies to the year 1857, while that of the Commissioner applies to several years:—

SUPERFICIES OF OHIO.

Mr. Klippart represents the superficies of Ohio, and its agricultural divisions, as follows:—

Superficies of Ohio, including Lake Erie, to the boundary line.sq. miles	42,500
Land surface, as returned by the United States Land-office	39,965
Land.....acres	25,575,950
Land occupied or attached to farms	19,800,000
Land actually cultivated, (in 1857,)	11,583,731
Land actually cultivated, consists of plow land	6,526,161
Land actually cultivated, consists of meadow	3,705,810
Orchards, gardens, and yards	800,000
Roads and public improvements	424,000
Town lots	27,760
Woodlands—unoccupied and uncultivated	13,479,310
Of this there belongs woodlands to farms in cultivation	8,640,000
Wild lands belonging to non-residents	4,939,310
Land-owners, exclusive of owners of town lots	277,000
On 1st April, 1857, there were government lands	38,182
Average amount of land held by each person, about	86

PRODUCTION OF CEREALS.

The production of cereals is mainly confined to Southern and Middle Ohio. The Western Reserve, embracing a tract of 8,300.000 acres, is best adapted to grazing and dairy purposes. In 1850 not a county within the original limits of the Reserve produced 100.000 bushels of wheat, nor did any, excepting Huron and Erie counties, produce 500,000 bushels of corn—Geauga County produced the least of any of the Reserve Counties, viz.:—26,426 bushels of wheat and 129,259 of corn. That year, however, was rather below the average of productiveness in cereals. The number of acres sowed in wheat in 1856, in the State of Ohio, was 1,478,164, producing 15,333,837 bushels; an average of ten bushels per acre. Acres of corn planted the same year, 2,084,893, producing 57,852,515 bushels; an average of 27 bushels per acre. Butler was the only county in the State that produced more than 600,000 bushels of wheat. Montgomery only produced over 500,000 and under 600,000; Green, Stark, and Preble only produced over 400,000 and under 500,000. In 1850 Stark alone produced 1,000,000. Brown, Champaign, Clark, Darke, Fairfield, Highland, Miami, Muskingum, Ross, Warren, and Washington produced over 300.000 and under 400,000 bushels; Adams, Belmont, Clermont, Clinton, Franklin, Hamilton, Licking, Monroe, Morgan, Perry, Pickaway, Richland, Seneca, Tuscarawas, and Wayne produced over 200,000 and under 300,000. From this it appears that only four northern counties produced over 200,000 bushels of wheat in 1850.

Paulding produced only 8,337 bushels, being less than the production of any other county in Ohio.

It appears also that farmers are withdrawing their land from the cultivation of wheat, the destruction by the midge or red weevil, and other insects, combined with winter killing and other destructive causes, proving a discouragemnt to them. In 1855 there had been a reduction since 1850 of the area sowed of 250,000 acres. and during that period farmers lost 20,000,000 bushels by causes above cited. The crop of 1857 is estimated at 25,000.000 to 28,000,000 bushels. The practice of underdraining clayey soils is recommended as an antidote against some of the causes destroying the wheat crop. The losses from 1853 to 1856 inclusive, attributed to destructive insects, want of underdraining, &c., is exhibited as follows :—

In 1853	bushels	3,640,348
In 1854		9,729,541
In 1856		6,247,357
Total		19,617,246

Say *fourteen per cent* of the entire quantity produced from 1850 to 1856, inclusive, or *thirty per cent* of the crops from 1853 to 1856, inclusive. Mr. Klippart suggests that legislative aid be invoked to prevent the recurrence of losses by causes stated above. We beg leave to suggest that if the wheat interest is profitable, it would be wise in those most interested to devote their own time and means in pursuing experiments looking to the destruction of insects which destroy agricultural products.

CORN.

None of the counties in the northern half of the State, nor any out of the Miami or Scioto valleys produced one million bushels of corn in 1850. Butler, Fayette, Pickaway, and Ross produced upwards of two million each. In 1855 Ross and Pickaway, embracing a territory of less than twelve hundred square miles, or about seven hundred and fifty thousand acres of land, produced seven-and-a-half million bushels of corn. In 1856, Clinton and Franklin counties produced over one million five hundred thousand bushels each, and the following counties produced over one million each, viz. :—Champaign, Fairfield, Green, Hamilton, Highland, Licking, Madison, Miami, Montgomery, Preble, and Warren. Geauga produced only 126,259 bushels, being the smallest quantity by any one county. The crop of 1857 has been estimated at from sixty millions to ninety millions, and for 1858 at fifty millions to sixty millions. The culture of corn has been gradually increasing since 1850.

The report says that while land has been withdrawn from wheat culture, and that cultivation of corn has increased, the inference that wheat lands have been converted into corn lands is not justified. A great proportion of the lands released from wheat culture have been converted into meadows and pasture lands. The additional corn lands are new. About 2,963,104 acres are devoted to oats, potatoes, barley, rye, flour, tobacco, sorghum, grapes, broom corn, and orchards.

COCHINEAL CULTIVATION IN TENERIFFE.

The brilliant carmine of the painter, and the rich scarlet and crimson colors of the silk and woolen dyer, are produced from a small bug which feeds on the cactus plant. This insect, called "cochineal," was unknown in Europe before the discovery of this continent. It was first exported by the Spaniards from Mexico, where it was employed by the natives in producing those beautiful red colors on feathers, which were made into divers curious Indian fabrics. Cochineal is sold at from one dollar and a half to two dollars per pound. At one period, its cultivation was mostly limited to Mexico proper, but it has lately been ex-

tended to other countries, with very profitable returns to those who have engaged in it. Its introduction and present extensive cultivation in the Island of Teneriffe forms a remarkable episode in the history of the plants and people of that wonderful island, whose volcanic peak is seen from afar on the ocean, towering up, like a huge sugar-loaf, twelve thousand feet into the blue vault above. For three hundred years this island had been a vine-producing country, and wine was the principal article of its commerce—as much as 25,000 pipes being exported annually—and who would have thought that it ever would be otherwise? But sometimes revolutions take place in the natural as well as the social world, and about fifteen years ago, "the handwriting of doom" went forth against the wines of Teneriffe. The "vine disease" fell upon the vinyards, the fruit withered, the plants died, and starvation stared the people in the face. The American vessels which used to frequent the island to exchange flour and provisions for wine, deserted the harbors. What were the people to do?

Some years previous (in 1835) a native gentleman, knowing that the cochineal was cultivated profitably in Honduras, thought it might be equally so in Teneriffe. He therefore introduced the cactus plant and its attendant insect, and set out a cochineal plantation. The people around him, blinded by a strange fanaticism, thought that the cactus was something insulting to the vine, and they destroyed his plantation at night. But being a man of some determination, and supported, happily, in his views by government, he was so encouraged as to adhere in his efforts to cultivate it as secretly as possibly, in some lonely spots, and he was at last rewarded for all his trials and labors. When the grapes died, and despair seemed to settle down upon the people, as the vine was their principal dependence, the question was sent forth, "Why not try to convert the abandoned and withered vinyards into cochineal plantations?" A furor seemed to seize the people in its favor, as it had already been demonstrated that the cochineal insect propagated rapidly, and the cactus flourished luxuriantly. The deserted vinyards were converted into fields of the cactus plant, and such a profitable investment was never made before in the culture of the soil, even in the palmiest days of wine-growing. An acre of ground, set out with the cactus plant, yields about 300 pounds of cochineal, and under the most favorable circumstances 500 pounds, for which the owner receives about $340. The peasant women nurture patches of the cactus around their cottages, and thereby acquire considerable convenient little sums for domestic purposes, as the cochineal is always marketable, and in demand.

The cochineal insect resembles a plump rose-bug when dried. The female parents produce young in very great numbers; the males resemble gnats, are very short-lived, and are few in number in comparison with the females. The latter, when young, are white, but gradually become purple in color, by secreting the fluid derived from the plant—that for which it is so valuable. When filled with this secretion, these insects are shaken off the plants, placed on clean boards, and dried in ovens, which process prepares them for market.

It ought to humble personal human pride when it is considered that its gratification is oftentimes due to very despised sources. Thus the cochineal insect, or bug of the cactus plant, is employed to put the artificial rose on the pale cheek, and the bloom on the new scarlet uniform in which the young soldier takes such pride. At some future day, cochineal may become an object of culture in Florida and Texas, where the cactus and its purple insect abound.

THE PRODUCTION OF WINES IN HUNGARY.

Hungarian wines having been lately introduced into the United States to a considerable extent, the following statements and statistics, gathered from a volume lately published in London in regard to the extent of the vine lands of Hungary, will probably surprise many of the readers of the *Merchants' Magazine*:—

The total extent of land cultivated in vinyards in the whole country (including those provinces which do not enter into the classification of this section) is not less than from 1,500,000 to 1,700,000 acres. The absence of general and official statistics renders it difficult to state the precise measurement at any particular period. The average production of a medium season, calculated in each district and in the aggregate, in exact proportion to the several extents and yields, rates at 420 gallons to the acre. Taking the whole area to be 1,500,000 acres, therefore, the gross total production of such a season is 630,000,000 gallons. From this must be deducted the deficit of less abundant crops, which, reckoning by decades, from the best information relating thereto for the last fifty years, and spread over every year, is equal to one-sixth of the average production for each separate year, that is, to 105,000,000 gallons. Deducting this amount, we have a residuary average of 525,000,000 gallons. To this sum we have now, however, to add the excess resulting from exuberantly abundant seasons, which, similarly calculated and spread over every year, is equal to one-thirtieth of the average production for each separate year, or to 21,000,000 gallons. Thus the ultimate gross yearly average is brought to 546,000,000 gallons. Of this quantity very nearly 120,000,000 gallons are the produce of choice districts, including all qualities:—That of Ofen, Pesth, and Maitzen, with their dependencies, exclusive of what is called the plain of the Danube, yielding 13,312,520 gallons off an area of 30,115 acres; that of the Hegyallya, including Tokay and its dependencies, nearly 13,000,000 gallons off an area of about 75,000 acres; that of Arad, Menesh, etc., about 8,775,000 gallons off an area of 25.000 acres—namely, 2,535,000 off 13,000 acres of upland vinyards, and 6,240,000 off 12,000 acres of lowland vinyards; that of Szekszard, 10,400,000 gallons off an area of 25,000 acres, namely, 3,900.000 off 15,000 acres of upland vinyards, and 6,500,000 off 10,000 acres of lowland plantations; that of Baranya, Funfkirchen, Villany, and their dependencies, about 13,000,000 off an area of approximately 25,000 acres; that of Szalad, Veszprim, etc., 13,328,000 gallons off an area of 39,200 acres; that of Visonta, Erlau, etc., 4,451,850 gallons off an area of 9,250 acres; that of Presburg, Sz. Georgen, Ratschdorf, etc., 8,840.000 gallons off an area of about 17,000 acres; that of Komorn and Nezmely, 1,300,000 gallons off an area of about 5,000 acres; and that of Rust, Oedenburg, and Gunz, 397,530 gallons of good wine off an area of 1,700 acres. The various districts of the Banat, Sclavonia, and Croatia have to be added, although the details respecting them will transpire hereafter. The most scanty average production of spare hilly soil, where nearly the whole of the fruit is allowed to wither, is about 104 gallons to the acre; the most abundant of the rich alluvial valleys and plains, where none is withered, reaches upwards of 2,000 gallons, but in few places exceeds 1,250 gallons. The good lowland vinyards, where no fruit is withered, bear an average of 650 gallons, and the good upland vinyards, under similar conditions, 390 gallons. In upland districts, where a considerable proportion (greater or less) of the fruit is withered, the average ranges between 150 and 250 gallons.

The stocks of choice wines accumulated in the vast cellars of the principal trading towns, such as Ofen, Pesth, Raab, Presburg, Turnau, etc., are prodigious, not to mention the immense collection preserved in the episcopal, chapteral, and manorial cellars, and in those of the most wealthy of the land-owning aristocracy. In Ofen and Pesth alone, it is estimated that no less than between fifteen and twenty millions of gallons are constantly on hand; in the manorial stores of Almas and the Esterhazy cellars at Bay, about 400.000 gallons each; at Teteny, about the same; and in one cellar at Turnau, nearly double the quantity.

It is estimated that the demand for local consumption annually absorbs about

325,000,000 of the total production, and that some ten or twelve millions more are converted into vinegar or wasted every year. Distillation (exclusively of other fruits, grain, and potatoes) is confined to the murk, which is either sold to the distillers or reserved by the growers, in vats carefully luted with clay until winter, for home distillation. Where wine-presses are generally used, the produce of spirits (of 60° by Tralle's hydrometer) from the murk does not exceed an average of above seven gallons to the acre of vinyard; but in the districts in which wine-presses are scarce, the murk is so much richer that the spirits obtained in distillation amounts to nearly thirty gallons to the acre. The total produce of the country thus reaches nearly 11,500,000 gallons of brandy from grape murk, which, though greatly preferred to the spirits distilled from potatoes, etc., is spoiled by the empyreumatic odor and taste which it always possesses.

Since compiling the above statement we learn from the *Evening Post* that the introduction of Hungarian wine into this country to any considerable extent dates from the close of the Hungarian struggle, and, in the estimation of many, is the only desirable consequence of the subjugation of Hungary by the Austrians, one of the first steps on the part of the victorious government being the abolition of the heavy export tax, which had operated to prohibit the transportation of the wine beyond the frontiers of Hungary. This act was prompted by the desire of the emperor to consolidate the territories of Austria and the conquered kingdom under one system, and abolish every law which might remind the Magyars of their former independence.

Fortunately the sagacity and enterprise of Mr. Freund, a Hungarian gentleman in New York city, took advantage of what was intended as a finishing blow to the nationality of his countrymen. Having enjoyed a liberal education, and after serving with distinction as a staff officer in the army of Hungary, on his arrival here he has applied his faculties to a great variety of subjects in the pursuit of subsistence, being first a private tutor; then a professor of languages, philosophy, chemistry, and astronomy in one of our colleges; a manufacturer of artificial marble, of which, we believe, he was the inventor; a ship-joiner, architect, and finally an importer of the wines of his native country, in which he, with his partner, Mr. Grossinger, is doing a very large business, with a view of finally uniting it with the introduction of the various other articles which may be obtained cheaper from Hungary than elsewhere.

SORGHO, OR CHINESE SUGAR CANE.

The Paris correspondent of the *Journal of Commerce* says that the sorgho, or Chinese sugar cane, which has attracted so much attention, formed a prominent feature in the late annual agricultural exhibitions of France. This plant is extensively and successfully cultivated in the south of France, and in Algeria; and as an evidence of the extent and variety of the application of its material, we may mention that at the late exhibition at Avignon, M. Prieur exhibited a group of samples illustrative of the metamorphoses to which he has subjected it. Nothing could be more curious than the succession of transformations there shown. In one corner could be seen the sorgho in stalk, such as it is when cut; a little further, were its fibers converted into thread, in skeins; then a piece of linen woven with the thread; then a handsome cloak, bordered with furs, which M. Prieur designs for the Prince Imperial.

The most curious and complete array of the products of the sorgho, however,

at the same exhibition, was that of Dr. Sicard, of Marseilles. With the pith he has manufactured excellent sugar, which will favorably compare with any other whatever. By grinding the seed he has obtained flour and fecula, of which he has made bread and chocolate, which the many tasters have found palatable. He extracts, moreover, from the plant, an abundance of alcohol of superior quality, and besides, a most agreeable wine, containing in large quantities all the tonic and other salutary elements of the juice of the grape. In addition, he makes paper out of it, of which he showed evidence in superior samples; by chemical agents he gets from it gambogs, ginseng, carbon; skeins of cotton, wool, and thread dyed with sorgho in those delicate and varying shades which hitherto have been found only in the stuffs and articles coming directly from China. We should add that the new derivations (as we may style them) from the cane are complete, and can be delivered to trade and industry at determinate prices.

STATISTICS OF POPULATION, &c.

POPULATION OF GREAT BRITAIN.

In 1856 the population of England, Scotland, and Wales was 22,080,449, viz.:—10,802,279 males and 11,278,170 females. England and Wales contained 19,045,187 of these, and Scotland 3,035,262. There were 759,201 births, 448,962 deaths, and 179,824 marriages. There were 614,802 legitimate and 42,651 illegitimate births in England and Wales, and in London 83,787 legitimate and 3,646 illegitimate births. The proportion of illegitimate to legitimate was 1 in 14.0, and 1 in 23.0. The proportion of marriages to the population was 1 in 119 in England and Wales, and 1 in 100 in London, and it is added:—In Great Britain 5,179 schools were inspected in 1856, accommodating 877,762 children; 571,239 was the average number in attendance; 3,455 of these schools belonged to the church, and the rest to the various dissenters (including the Roman Catholics) and the kirk of Scotland; 165 primary schools were built, and 6,262 enlarged or improved in England in 1856. The receipts for the purposes of primary education amounted to £915,372, (£422,633 from Parliamentary grants,) and the expenditure to £939,910.

In Ireland there were 5,245 national schools at work at the end of 1856, and the average daily attendance varied from 269,410 to 254,011. There were 168 agricultural national schools at work in 1856. The receipts on account of primary education amounted to £247,664, and the expenditure to £231,458.

The total number of paupers in the United Kingdom in 1857 was 1,057,133, the percentage to the population being 4.6 in England and Wales, 3.9 in Scotland, and 0.9 in Ireland. The total expenditure on the paupers of the United Kingdom was £7,153,742. In England there were, in 1857, 122,845 in-door, and 762,165 out-door, paupers. The adult able-bodied paupers (exclusive of vagrants or "sturdy beggars") numbered 140,075, of whom 19,660 were maintained in-doors. The total amount expended on the relief of the poor in 1857 was £5,898,756, the average rate per individual of the population having been 8s. 5¼d. for "poor rates received," and 6s. 1¼d. for expenditure in relief of poor.

Ireland presents a remarkable improvement as regards the decline of pauperism. The total number of paupers in 1857 was only 56,910, against 73,525 in 1856, and 89,610 in 1855. The percentage ratio to the population was only 0.9. The expenditure has fallen off from £849,951 (1855) to £619,514.

INCIDENTS OF LIFE.

The number of languages spoken is 4,064. The number of men is about equal the number of women. The average of human life is thirty-three years. One-quarter die before the age of seven. One-half before the age of seventeen. To every one thousand persons, one only reaches one hundred years. To every one hundred only six reach seventy-five years; and not more than one in five hundred will reach eighty years. There are on the earth one thousand million of inhabitants. Of these, 33,333,333 die every year; 91,824 die every day; 7,780 every hour, and 60 per minute, or one every second. These losses are about balanced by an equal number of births. The married are longer-lived than the single; and above all, those who observe a sober and industrious conduct. Tall men live longer than short ones. Women have more chances of life previous to the age of fifty years than men, but fewer after. The number of marriages is in the proportion of seventy-six to one hundred. Marriages are more frequent after the equinoxes, that is, during the months of June and December. Those born in spring are generally more robust than others. Births and deaths are more frequent by night than by day. Number of men capable of bearing arms is one-fourth of the population.

GREAT BRITAIN AND FRANCE.

By the latest return of the populations of Great Britain and France, it appears that the proportion of children and young persons to adults is about one-seventh more in Great Britain than in France. The inferences are that marriages are more fruitful than in France; that the population in Great Britain is in a more rapid state of advance—the percentage of persons living under 15 being 35 in Great Britain, and 30 in France. The total number of adult males in the United Kingdom is 5,210,000; in France, 7,250,000.

POPULATION OF CHINA.

The Russian mission, now at Pekin, has, in a recent report, made known the result of the last census taken by the order of the Emperor of China. The present population is said, by this document, to amount to 415,000,000; that of Pekin being about 1,948,815.

POPULATION OF CHILE.

The Chilean Secretary of State has issued the new census returns to December, 1857. Whole number of inhabitants, 1,558,319; foreigners, 19,669; eighteen are of the age of 118 and 120 years; 187 are over one hundred years; 153,294 know how to read.

SERF POPULATION OF RUSSIA.

The emancipation of the serfs in Russia meets with great, but not entirely unforeseen, obstacles. The Emperor Alexander II., not willing at first to introduce the measure in the usual autocratic manner, has merely invited the nobility to follow his own example; but it does not appear that, beyond Poland and the ancient Polish province of Lithuania, any other government circle of Russia has answered the call. The peasants, knowing the Emperor's wish, and the unwillingness of the nobles to gratify it, have taken up arms in many of the government circles, and have driven the nobles from their estates to seek shelter and protection in the neighboring towns. The emancipation of serfs, even under an absolute government, and where the serfs are of the same race as their masters, and possess the same capacity for culture, is not an easy task, and will yet cost the Emperor many sleepless nights. To give you an idea of the condition of the people of Russia, I quote from the annual report of the Minister of the Interior. According to him real estate was thus divided. There were:—

57,000	estates	with	from	1	to	20	peasants or serfs.
30,000	"	"		20	"	100	" "
18,000	"	"		100	"	500	" "
2,000	"	"		500	"	1,000	" "
1,400	"	"		1,000	"	10,000	" "
5	"	"		20,000 and over.			

The whole number of peasants consisted of—

Crown peasants	9,000,000
Serfs	11,750,000
Total	20,750,000

There were also eighty-eight thousand proprietors with from one to ten serfs each, employed in towns and cities, and obliged to pay *obrock*, or tribute, to their masters. These are not nearly as well off as the serfs on the plantations, and the imperial measure is intended to reach all.

POPULATION OF HAMILTON, CANADA.

The following table exhibits the numbers of the people at various periods:—

In 1850 there were	10,300	In 1856 (July) there were	21,855
In 1854 "	18,596	In 1858 (Oct.) "	27,288

POPULATION OF NEWFOUNDLAND.

The population of Newfoundland, as shown by the census of 1858, is 119,336. Of these, 55,152 are Catholics, 42,859 Episcopalians, 20,142 Methodists, 302 Scotch Presbyterians, 520 Scotch Free Church, 347 Congregationalists, 44 Baptists.

PAUPERS IN IRELAND.

The total number admitted into the Irish workhouses for the year ending September 29th, 1857, was 137,711, and the number of deaths 9,253; the total number admitted in 1856 was 153,797, and the deaths 10,727. The "poor-rate lodged" for the year 1856 was £723,204, and £585,583 for 1857.

MERCANTILE MISCELLANIES.

HUMAN HAIR AS AN ARTICLE OF TRAFFIC.

Few persons are probably aware of the extent to which the traffic in human hair is carried. It has been ascertained that the London hair-merchants alone import annually no less a quantity than five tons. But the market would be very inadequately supplied if dependence were solely placed on chance clippings. There must be a regular harvest, which can be looked forward to at a particular time; and as there are different markets for black tea and green tea, for pale brandy and brown brandy, so is there a light-haired market distinct from the dark-haired.

The light hair is exclusively a German product. It is collected by the agents of a Dutch company who visit England yearly for orders. Until about fifty years ago, light hair was esteemed above all others. One peculiar golden tint was so supremely prized, that dealers only produced it to favorite customers, to whom it was sold at eight shillings an ounce, or nearly double the price of silver. The rich and silk-like texture of this treasured article had its attractions for poets and artists as well as traders. "Shakspeare especially," says one of our authorities, "seems to have delighted in golden hair." "Her sunny locks hung on her temples like the golden fleece;" so Bassanio describes Portia in the *Merchant of Venice*. Again, in the *Two Gentlemen of Verona*, Julia says of Sylvia and herself; "Her hair is auburn, mine is perfect yellow." . . . . Black hair he only mentions twice throughout his entire plays, clearly showing that he imagined light hair to be the peculiar attribute of soft and delicate women.

A similar partiality for this color, touched with the sun, runs, however, though the great majority of the poets, old Homer himself for one; and the best painters have seized, with the same instinct, upon golden tresses. A walk through any gallery of old masters will instantly settle this point. There is not a single female head in the National Gallery, beginning with those glorious studies of heads, the highest ideal of female beauty by such an idealist as Correggio, and ending with the full-blown blondes of the prodigal Rubens—there is not a single black-haired female head amongst them.

But all this has passed away; the dark brown hair of France now rules the market. It is the opinion of those who have the best right to offer one on such a subject, that the color of the hair of the English people has deepened in tint within the last fifty years, and that this change is owing to the more frequent intermarriages, since the Napoleonic wars, with nations nearer to the sunny south. Whether dark or light, however, the hair purchased by the dealer is so closely scrutinized, that he can discriminate between German and the French article by the smell alone; nay, he even claims the power, "when his nose is in," of distinguishing accurately between the English, the Welsh, the Irish, and the Scotch commodities. The French dealers are said to be able to detect the difference between the hair "raised" in two districts of Central France, not many miles apart, by tokens so slight as would baffle the most learned of our naturalists and physiologists.

Black hair is imported chiefly from Brittany and the south of France, where it is annually collected by the agents of a few wholesale Parisian houses. The average crops—we scorn the imputation of a pun—harvested by these firms, amount yearly to upwards of two hundred thousand pounds' weight. The price paid for each head of hair ranges from one to five francs, according to its weight and beauty; the former seldom rising above a pound, and seldom falling below twelve ounces. The itinerant dealers are always provided with an extensive assortment of ribbons, silks, laces, haberdashery, and cheap jewelry of various kinds, with which they make their purchases as frequently as with money. They attend all the fairs and merrymakings within their circuit, and the singularity and novelty of their operations are wont to strike travelers more than anything else which meets their notice. "In various parts of the motley crowd," says one who had stopped to stare his fill at one of the Breton fairs, "there were three or four different purchasers of this commodity, who travel the country for the purpose of attending the fairs and buying the tresses of the peasant-girls," who seem, indeed, to bring the article to market as regularly as peas or cabbages. "They have particularly fine hair," he continues, "and frequently in the greatest abundance. I should have thought that female vanity would have effectually prevented such a traffic as this being carried to any extent. But there seemed to be no difficulty in finding possessors of beautiful heads of hair perfectly willing to sell. We saw several girls sheared, one after the other, like sheep, and as many more standing ready for the shears, with their caps in their hands, and their long hair combed out and hanging down to their waists. Some of the operators were men, some women. By the side of the dealers was placed a large basket, into which every successive crop of hair, tied up into a wisp by itself, was thrown." As far as personal beauty is concerned, the girls do not lose much by losing their hair; for it is the fashion in Brittany to wear a close cap, which entirely prevents any part of the *chevelure* from being seen, and of course as totally conceals the want of it. The hair thus obtained is transmitted to the wholesale houses, by whom it is dressed, sorted, and sold to the hair-workers in the chief towns, at about ten francs per pound. The portion of the crop most suitable for perukes is purchased by a particular class of persons, by whom it is cleaned, curled, prepared to a certain stage, and sold to the perukeiers at a greatly advanced price—it may be forty, or it may be eighty, francs per pound. Choice heads of hair, like choice old pictures, or choice old china, have, however, no limit to the price they may occasionally command.

WHY SO FEW SUCCEED.

Life is a continued battle, in which defeat is suffered more often than victory is won. Along its flinty path the foot-prints of disaster are everywhere seen, and by the wayside are thickly strewed the graves of the fallen. Why is it that so few succeed? Why is the hope with which youth set out so often desolated, and the goal of ambition so rarely reached? The strife is too often commenced without preparation for the struggle. The young, impulsive, and ardent think they have but to reach forth their hand to pluck the fruit, that, like the apples of the Hesperides, is only to be gained after the highest endurance and the most patient perseverance. Seldom does genius give the tongue of flame that secures

distinction almost without effort. Toilsome study, and persistent investigation, and patient experiment are the only modes of realizing a power to create, or even to recombine, so as to subdue new elements to human use. Physical as well as mental training is necessary for the accomplishment of life-victories. But when the intellect is well cultivated, the bodily energies are often uncultivated. The mind, like friction upon a machine not lubricated, wears out the mechanism of the body, and its growing weakness and disorder nullify the power it envelops. How often a blanched cheek, emaciated limbs, and feeble muscles mark the successful student, who drops into the grave when he is about to reach the goal of his aspirations! We of America have much to learn on this point. A system of intellectual-forcing culture, a habit of putting boys to the business of men, has produced a species of precocity which, however much it may awaken astonishment at the wonderful developments, will leave—nay, has left—manifold evils. At the rate we are now progressing, the time is not far distant when such a thing as boys will be entirely unknown. Now the lads of ten wear the manners of maturity, and the girls of a lesser age are often women in all but physical development. To the want of physical culture there is also to be added a neglect of moral lessons. What school in America teaches "the humanities" as they should be taught? Where is principle laid down as the basis of all great efforts? Honorable action, not in the received sense, which is promptitude in resenting any conceived insult or suspected affront, but honorable action, meaning that squared upon the golden rule, "do unto others as you would they should do unto you," inculated as the highest guaranty of noble results? Our teaching is wrong; our example is wrong; our praise and our censure are often wrong; and the result is that we see fewer of those men, self-made, and strong in rectitude as the eternal truth, firm in principle as the living rock, pure in character as the mountain stream, and vigorous in mind and body as the sturdy oak, who shed honor on our early history.

SCIENTIFIC PARADOXES.

A recent writer in *Blackwood* says that the water which drowns us, a fluent stream, can be walked upon as ice. The bullet which, when fired from the musket, carries death, will be harmless if ground to dust before being fired. The crystalized part of the oil of roses, so grateful in its fragrance—a solid at ordinary temperatures, though readily volatile—is a compound substance, containing exactly the same elements, and in exactly the same proportions, as the gas with which we light our streets. The tea which we daily drink, with benefit and pleasure, produces palpitations, nervous tremblings, and even paralysis, if taken in excess; yet the peculiar organic agent called theine, to which tea owes its qualities, may be taken by itself, (as theine, not as tea,) without any appreciable effect. The water which allays our burning thirst, augments it when congealed into snow; so that Captain Ross declares the natives of the Arctic regions "prefer enduring the utmost extremity of thirst rather than attempt to remove it by eating snow." Yet if the snow be melted, it becomes drinkable water. Nevertheless, although, if melted before entering the mouth, it assuages thirst like other water, when melted in the mouth, it has the opposite effect. To render this paradox more striking, we have only to remember that ice, which melts more slowly in the mouth, is very inefficient for allaying thirst.

COMMERCIAL ASPECT OF CENTRAL AFRICA.

An interesting lecture was delivered by Rev. Mr. Bowen, before the Mercantile Library Association, on Thursday evening, upon the commercial resources of Central Africa, and the practicability of opening a large and profitable trade between that section of the world and the United States. Mr. Bowen is of opinion, from personal experience, that a trade (now paying 30 a 50 per cent profit) to the amount of thirty millions per annum, can be established with the River Niger, which he calls the Mississippi of Africa. From its delta to its source, we are told by Mr. B., it is more than three thousand miles in length. In no place is it less than half a mile in width, and throughout its entire length would be navigable to our Mississippi steamboats. Its principal tributaries are navigable for more than fifteen hundred miles. The immense district drained by the Niger and its branches is rich in undeveloped resources. The palm tree grows in luxuriant profusion, and from its nut, oil, for the supply of the world's trade, could be manufactured. Cotton of a long and firm staple, it is believed, can be easily produced, and an immense trade in indigo, African silk, ivory, and skins, could be established with facility. The great reason why the English have not succeeded better in their attempts to establish trade, is because they have confined their operations simply to ports along the banks of the Niger, and left the great interior country unexplored. Trading posts should be established in the interior in order to break up the vast traffic which finds its way across the deserts. Around these stations large towns would spring up which would soon become the nucleuses of civilization. Mr. Bowen pictured the country in glowing colors. No one, he said, who ever lived there, and became acquainted with the resources of Africa, came away without a desire to return. He believed that the country which shall send out the necessary force, with steamers, to open the trade there, will be repaid in a marvelous manner.

Mr. Bowen's explorations have been confined almost wholly to that portion of Western Africa extending along the River Niger, and as far eastward as Lake Tschak. The mountains of Africa are somewhat remarkable as to their configuration. There are no regular chains—they consist entirely of isolated peaks, shaped like saddle-backs, and usually densely covered with wood. Some are but gigantic boulders of granite rock, rising thousands of feet above the plains. Mr. Bowen traveled up the St. Paul River about a hundred miles from its mouth. At this distance the stream was over five hundred yards in width. Almost the entire surface of Africa presents but a vast undulating plain, which bears unmistakable evidence of its once having been cultivated, and the home of a mighty population. All over the country are to be seen "trays" worn in the rocks by the process used by the natives for grinding their corn. Between Lake Tschak and the Niger there is an immense table-land, rising thousands of feet above the ocean. The Great Deserts, from the time of Herodotus, have been represented as vast desolations. Nothing could be more incorrect, according to Mr. Bowen's account. It is everywhere inhabited, and contains within itself two great republics, having a literature among the oldest in existence. The mineral wealth of the country has been but little explored. Iron, we are told, is found in every hill. The ruins of ancient smelting furnaces are numerous. Copper and lead are to be found in abundance. Gold in the Ashantee country has always been found in great quantities. The gold region extends over a thousand miles of this

district. The seasons are characterized by *temporales*, commencing in March and September. The heat is rarely above ninety degrees. The climate is exceedingly healthy in certain districts, none more so than the country along the River Niger. Mr. Bowen dwelt somewhat upon the capacity of the natives, foreseeing for the educated African an opportunity for developing the vast resources of the country to an almost unlimited extent.

THE HISTORY OF PRICES IN 1857 AND 1858.

Mr. William Newmarch read a paper before the British Association on the above subject. After alluding to a paper on the same subject which he read last year at Dublin, and many of the views expressed in which were strongly controverted, Mr. Newmarch proceeded to consider the question—How it was that, in 1857—after a period of ten years, during which constant and great additions were made to the amount of metallic money in circulation—there came to be a panic which, in severity and extent, exceeded nearly all that had occurred for thirty years, and which differed from them all in its exciting causes. There was perfect peace, except in India, (which might be excluded from consideration in this instance,) no scarcity, no revolutionary panic, no excessive investments in railways; and yet there was this great crisis. The range of prices first claimed notice; and he would take as the point of comparison the price of sugar in London in January, 1855, representing that price as 100. He found on comparing prices in July, 1857 and 1858, that there was a fall during that period, in coffee, from 145 to 113; sugar, from 230 to 117; tea, from 130 to 110; cotton, silk, and hemp, (taken together,) from 170 to 105; wool, from 180 to 110; oils, from 105 to 80; iron, from 90 to 80; and timber, from 115 to 100. Take the prices of the first week of this month, and compare them with those of 1851, and it would be found that sugar had fallen from 140 to 125; tea, from 135 to 110; cotton, silk, and hemp, from 125 to 107. Bear in mind that during those seven years the gold and silver in circulation had been increased about forty per cent; for he believed that, in the early part of 1848, the gold and silver existing in various forms in Europe and America did not much exceed 550,000,000, and there had been added from new sources of supply (California and Australia) 230,000,000 at least.

HOW COFFEE CAME TO BE USED.

It is somewhat singular to trace the manner in which arose the use of the common beverage, coffee, without which few persons, in any half or wholly civilized country in the world, would seem hardly able to exist. At the time Columbus discovered America it had never been known or used. It only grew in Arabia and Upper Ethiopia. The discovery of its use as a beverage is ascribed to the superior of a monastery in Arabia, who, desirous of preventing the monks from sleeping at their nocturnal services, made them drink the infusion of coffee upon the report of some shepherds, who observed that their flocks were more lively after browsing on the fruit of that plant. Its reputation spread through the adjacent countries, and in about two hundred years it reached Paris. A single plant brought there in 1714, became the parent stock of all the French coffee plantations in the West Indies. The extent of the consumption can now hardly be realized. The United States alone annually consume it at the cost of

its landing of from fifteen to sixteen millions of dollars. You may know the Arabia or Mocha, the best coffee, by its small bean of a dark yellow color. The Java and East Indian, the next in quality, are larger and of a paler yellow. The West Indian Rio has a bluish or greenish gray tint.

VALUE OF THE CROWN JEWELS.

As it may be interesting to our readers who have heard so much lately about *fetes*, ceremonies, and the magnificence of upholstery, to know the value of some of the articles used on the occasion, we subjoin the estimated price of the jewels of the crown of state which Queen Victoria wore in St. James' Chapel:—

The great ruby	$50,000
The *aqua marina*	60,000
Twenty diamonds round the circle ($7,500 each)	150,000
Two large center diamonds ($10,000 each)	20,000
Four crosses, each composed of twenty-five diamonds	60,000
Four large diamonds on the tops of the crosses	200,000
Twenty-six diamonds contained in the *fleur de lis*	60,000
Pearls and diamonds on the arches and crosses	70,000
Total	$670,000

Notwithstanding the enormous mass of jewelry, the crown weighs only nineteen ounces ten pennyweights. It measures seven inches in height from the gold circle to the upper cross, and its diameter at the rim is five inches.

PHILIPPINE ISLANDS.

The port of Iloilo, in the center of the southern group of the smaller Philippine Islands, has been opened to foreign trade by the Spanish Government, and is probably destined before long to become well known in commercial enterprise, although at present there are scarcely half a dozen merchants or shipowners here who ever heard of the place. Iloilo (or Iloylo) is the chief port of the small but fertile island of Panay, which contains a population of about 700,000 inhabitants, and together with the neighboring islands, of which it is expected to be the commercial depot, the population may be estimated at 2,000,000. Besides varieties of Eastern produce, of lesser importance, with which we are familiar from our connection with Singapore, Iloilo is expected eventually to export largely sugar and hemp to a considerable extent, and thus open a direct trade not only for shipment of raw produce to England, but for importing and distributing among the neighboring islands a proportionate amount of British manufactures.

SUPPRESSION OF THE SLAVE TRADE.

It appears from a Parliamentary return just issued, that in 1854 twelve ships, with 992 officers and men, were engaged in the suppression of the slave trade on the west coast of Africa; in 1855, twelve ships, with 1,082 officers and men; in 1856, thirteen ships, with 1,222 officers and men; in 1857, fifteen ships, with 1,424 officers and men.

At the Cape of Good Hope; in 1854, four ships, with 575 officers and men; in 1855, five ships, with 775 officers and men; in 1856, three ships, with 760 officers and men; and in 1857, three ships, with 610 officers and men.

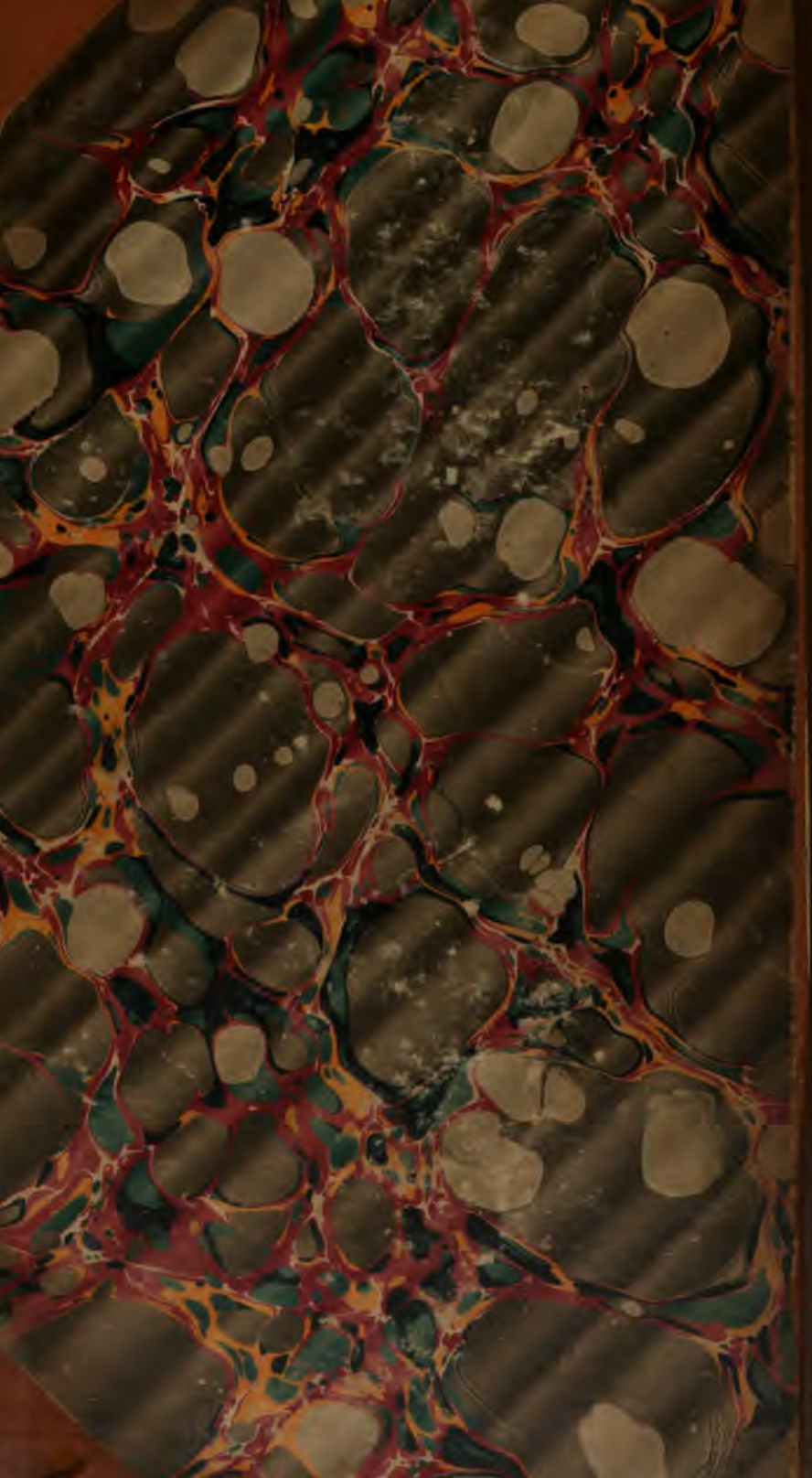
THE BOOK TRADE.

1.—*Abridgment of the Debates of Congress*, from 1789 to 1856. From Gales & Seaton's Annals of Congress, from their Register of Debates, and from the official reported Debates by John C. Rives. By THOMAS H. BENTON, author of "Thirty Years' View." Vol. IX., 1826 to 1828. 8vo., pp. 752. New York: D. Appleton & Co.

We are in receipt of this the ninth volume of Benton's Congressional Debates, and are glad to see that, though the compiler has passed away, the good work he begun shows no symptoms of flagging, although the condensation and preparation for such a work must be immense. It is to these pages we are to look for a sound and practical understanding of the principles of the Constitution and government under which we live. The vast variety of relations which the Federal government maintains, both as supreme over the republic and in its relations to the sovereign States of the Confederacy, are the basis of the numerous topics in these debates, and for this reason the work should have a place in the library of every one who would become acquainted with its parliamentary history. It may justly be considered a national enterprise, prepared with impartiality and marked fidelity to truth of history. The index which accompanies each volume shows at a glance the leading arguments used in the debates, as well as the topics discussed, and the work when complete will form a comprehensive history of the legislation of the United States—the best, we have no hesitation in saying, which will ever be written.

2.—*Swedenborg, a Hermetic Philosopher;* being a Sequel to remarks on Alchemy and the Alchemists, with a Chapter comparing Swedenborg and Spinoza. By the author of "Remarks on Alchemy and the Alchemists." 12mo., pp. 352. New York: D. Appleton & Co.

There seems to be three modes by which the Christian religion is received in the world, and though not absolutely distinct from each other, yet sufficiently marked to be readily distinguished. With one class it is received historically, and its truth is supposed to rest mainly upon historical evidences, so strong that no man in his proper senses can reject the testimony. We next find a class of more cultivated minds, who would clothe the Scriptures, by their abstruse reasonings and attempts to connect the perfection of man with a knowledge of God, with more of philosophy, by insisting upon the fact that all ancient wisdom has come down to us in correspondences and symbolism, not to be taken literally, but to be studied out in spirit, and by these it is that the chief controversies touching the externals of religion are mainly carried on. A third class receive the Scriptures as the spirit of truth, as taught by Jesus, manifested in him so strongly as to be the whole truth, and nothing but the truth, beyond and above all controversy. We cannot readily class the author of these chapters on Swedenborgian doctrine with any of these, but must accede to him a niche somewhat separated from the rest, and to all those who take an interest in such matters, and would acquaint themselves with these abstruse questions, we would recommend this cirticism on Swedenborg, as eliciting much ingenious thought, combined with many striking truths.

3.—*Blonde and Brunette;* or, the Gothamite Arcady. 12mo., pp. 316. New York: D. Appleton & Co.

This well written and highly interesting story, the editor tells us, was gotten hold of accidentally, after having slumbered for some time in the dust of a portfolio. Upon persual of the book, we feel constrained to congratulate him on his good fortune, for it has been long since we have read a story of this kind with as much interest.